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ON THE COVER: Olive oil tasting just after the olive harvest, Tuscany, Italy, November 2003. (Photo courtesy of Anne Meneley)



In Focus: The Techne and Technoscience of Food and Drink

DEBORAH HEATH
ANNE MENELEY
Guest Editors

Techne, Technoscience, and the Circulation of Comestible Commodities: An Introduction

ABSTRACT In this "In Focus" introduction, we present the ways in which discourses of techne (craft or artisanship) and technoscience mediate the production, consumption, and circulation of food and drink. The authors in this "In Focus" examine food and drink as localized instances of large-scale spatial and temporal processes and as cultural-material markers of power/knowledge. Our work on the current controversies surrounding foie gras exemplifies how specialty commodities marketed as "artisanal" are simultaneously legitimated through technoscientific practices and invocations of tradition or nature. Claims to distinction based on tradition or "terroir" are also imbricated in global industrial production and distribution. [Keywords: food, drink, techne, technoscience, foie gras]

ARNOLD SCHWARZENEGGER, the former Terminator and current governor of California, Loretta "Hot Lips" Swit, Roger Moore of 007 *Live and Let Die* fame, and Pope Benedict might seem unusual bedfellows, but they are united in one respect: their opposition to foie gras. None of them, we suspect, would imagine that they were contributing to a discussion about production and consumption long ago initiated by Karl Marx. The debate about foie gras (Heath and Meneley 2007) provides an excellent example of the tensions between artisanal and industrial food production that are key to several of the articles included in this "In Focus" section, in which we examine how production and consumption of food commodities are mediated in terms of techne and technoscience.

This collection examines the ways, in a diverse range of times and places, that we do things with our potables: how we manifest and transform identities, moralities, and emotions; express and accomplish the poetics and politics of sociability; and mark local instances of large-scale temporal and spatial processes. What we eat and drink, and how we do so, indexes both the corporeality of our habitus and the practices of distinction that embody relations of power/knowledge. Inextricably intertwined with the cultural-material processes that transform Nature into Culture, food and drink draw our analytical attention to the twinning of production and consumption, as Karl Marx aptly tells us in his *Grundrisse*. As he argues:

Production, for its part, correspondingly (1) furnishes the material and the object for consumption. Consumption without an object is not consumption; therefore, in this respect, production creates, produces consumption. (2) But the object is not the only thing which production creates for consumption. Production also gives consumption its specificity, its character, its finish. Just as consumption gave the product its finish as product, so does production give finish to consumption. *Firstly*, the object is not an object in general, but a specific object which must be consumed in a specific manner, to be mediated in its turn by production itself. Hunger is hunger, but the hunger gratified by cooked meat eaten with a knife and fork is a different hunger from that which bolts down raw meat with the aid of hand, nail and tooth. [Marx 1973]

Hunger is indeed hunger, but it is mediated by both symbolic and technical dimensions of production and consumption. One might think of the example of kosher or halal meat: the conditions of production (i.e., correct modes of slaughter) affect conditions of consumption (or proscriptions against it). Similarly, consumers—in this case, consumers determined by religious affiliation—drive processes of production. In our particular examples in this introduction and in the articles in this "In Focus," we see the reciprocal and dynamic tension between production and consumption that Marx outlined. Production not only furnishes consumption with its object, in an external relation, and consumption not only provides production with its

telos, but they also stand in internal relations, as Marx reminds us. Symbolic and technical categories of production are an immanent moment in consumption, and consumption internally informs the production processes.

Within these broad categories of production and consumption, we wish to examine how *techne* and *technoscience* take part in both. The panel that gave rise to this set of articles explored the dynamic interplay between discourses of *techne* (craft or artisanship) and *technoscience*, as legitimating strategies aimed at establishing practices of distinction in the production, consumption, and circulation of products ranging from extravirgin olive oil and vintage port to neotraditional foodstuffs for African immigrants in North America.¹ These case studies drew our attention to the ways in which the marketing of specialty commodities as “artisanal” or “traditional” is imbricated in various ways in global industrial production processes, including standardized technoscientific testing, even as such products are touted for their distinctiveness from mass-produced potables.

Alongside the seemingly paradoxical invocation of both *techne* and *technoscience* by producers of specialty commodities, we find a broader analytical utility in more closely examining the historical dialectic between *techne* (knowledge as embodied art, craft, or skill), on the one hand, and *episteme* (knowledge as systematic classification or regimes of taste, value, and expertise), on the other hand. In the classical division between body and mind, *techne* (technology, bodily techniques) represents making and *episteme* (science, mind) represents knowing. The term *technoscience*, brought into science and technology studies by Bruno Latour (1987), poses a challenge to this mind-body split, indicating that the work or practice of science incorporates *techne*, or technological work, at a fundamental level.²

John Pickstone says that *technoscience*, as work and practice, constitutes a way of knowing specific to contemporary capitalism in which “ways of making knowledge . . . are also ways of making commodities” (2000:13).³ Pickstone’s discussion of science, technology, and medicine as “ways of knowing” and “ways of doing” notes that the concept of “*technoscience*” transcends the conventional association of science with knowledge and technology with manual production.⁴ The studies of food and drink in this issue can usefully be seen as both ways of knowing and ways of doing or making; differently put, each of these cases describes the different kinds of material-semiotic work that food and drink do as production and consumption in both political-economic and sociocultural domains.

While recognizing the specificities of global capitalism in the present moment, certainly a salient factor in a number of articles in this “In Focus,” we also wish to insist on the merits of considering how knowing and doing are intertwined across historical epochs. We see this, for example, in the article by Rosemary Joyce and John Henderson (this issue), in which the transformations of

early Honduran drinking vessels are the material-semiotic manifestations of social change and differently situated knowledges over time.⁵ Indeed, food and drink represent embodied epistemologies that are always already intertwined with the transformative work of production and consumption. The nuances of this relationship can inform both historical investigations and robust ethnographic approaches to the circulation, prestation, and distribution of comestible commodities.

THE *TECHNE* AND *TECHNOSCIENCE* OF FOIE GRAS

Marx’s insight that production and consumption attend one another is amply exemplified by our ongoing project on foie gras production and consumption (Heath and Meneley 2007); we use our own research as an entrée into the discussion of the articles in this section. Recent debates over foie gras have pitted animal rights activists against food connoisseurs; foregrounded in these debates are conditions of production, which are said to determine edibility or inedibility.⁶ For PETA and its allies in Europe and North America, the consumption of foie gras is morally reprehensible because of the conditions of its production: for instance, on the PETA website one can see graphic claims of the cruelty of force-feeding geese and ducks. Legislation aimed at banning foie gras has been passed in the state of California and city of Chicago on the grounds that force-feeding constitutes “torture,” although this might seem ironic in an age when public discussion of torture of human beings has come to be tolerated.

However, food professionals like Alice Waters have argued that the *techne* of foie gras production merely takes advantage of the natural inclination of the ducks and geese to fatten their own livers in preparation for migration (Factory Farming Campaign of the Humane Society of the United States 2004). Culinary historian Maguelonne Toussaint-Samat claims, “The goose itself invented cramming” (2005:424). In another instance, a French chef in Toronto said, “Why don’t people make foie gras from chicken or turkey? Because it won’t work,” implicitly claiming that producers were doing what the geese would naturally do themselves, except that the geese were in this case fed by hand (personal communication with Anne Meneley, Toronto, July 9, 2006). Hence, the foie gras that has been a prized food commodity for gourmands since the days of Pliny and Plutarch (so go the narratives articulating the ancient lineage of both its production and consumption) is perceived as food rooted in the nature of the animal, extracted by human *techne*.

In the battle of words surrounding foie gras, those on both sides of the debate hail Nature and Science as their advocates, as the rival groups police the boundary between the normal and the pathological (pace Canguilhem 1991). Opponents routinely describe the fatty liver that gives this delicacy its name as “pathological” or “diseased.” Testifying before the U.S. House Agriculture Committee on May 8, 2007, Wayne Peter Pacelle, President and CEO of the

Humane Society, included an indictment of the foie gras industry that characterizes its practices as “egregious cruelty,” describing force-feeding “grossly unnatural amounts of food through pipes thrust down their throats to make their livers fatty and diseased” (see Pacelle 2007). Pacelle’s testimony cited the European Union’s Scientific Committee on Animal Health and Animal Welfare (1998), calling it the EU’s “most authoritative scientific body on farm animal welfare.” As sole evidence, he presented a claim from one of their documents (1998) that force-feeding is “detrimental to the welfare of the birds.” He also uses descriptive accounts from the America Veterinary Association (AVA)—although AVA itself has refused to characterize foie gras production as inhumane—as the basis for the following assertion: “In other words, factory farmers deliberately induce a disease in order to produce this so-called ‘delicacy.’ ” It is noteworthy that he refers to foie gras producers as “factory farmers.” In short, Pacelle’s rhetoric borrows from the well-known critique of large-scale industrial food production, of which three of the most prominent popular critics are Eric Schlosser (*Fast Food Nation*, 2001), Michael Pollan (*The Omnivore’s Dilemma*, 2006), and Morgan Spurlock, director of the film *Super Size Me* (2004).

Yet the three farms producing foie gras in the United States emphasize their status as small farmers using traditional techniques. Guillermo Gonzalez, one of these producers, says, “Last year, I raised 50,000 ducks. To put this in perspective, a modern poultry plant processes more birds in a single eight-hour shift than I do in an entire year” (Gonzalez 2007). Having recently hired a Washington, D.C.-based lobbyist, the farmers have formed an association called the Artisan Farmers Alliance, effectively aiming to underscore how they differ from large-scale poultry producers.

In the origin story found on the website of Sonoma Foie Gras, Guillermo and Junny Gonzalez, immigrants from El Salvador, recount their journey first to apprentice with traditional foie gras producers in France and then to northern California to consult with scientists in the Department of Avian Science at the University of California, Davis. In his recent congressional testimony, Guillermo Gonzalez, invoking both the lived experience of the small (artisan) farmer and the legitimating power of technoscientific expertise, noted that the “age-old farming methods” used by Sonoma Foie Gras and the other members of the Artisan Farmers Alliance have been studied in-depth by both scientists and veterinarians, and says, “While we farmers focus on the objective science, we are attacked on the basis of emotional appeals” (Gonzalez 2007). And these emotional appeals, say foie gras supporters, frequently rest on an anthropocentric logic that views avian sociality as well as physiology through a human lens. Former psychoanalyst Jeffrey Moussaieff Masson (2003:165–199) claims, for instance, that one should not eat ducks (never mind their livers) because they have “feelings,” form friendships, and are “family oriented”; geese, moreover, are deemed inedible because they are monogamous.

Simultaneously indexing scientific accounts of duck and goose anatomy, and rebutting critics’ characterizations of their product as the result of unnatural, inhumane animal treatment, the site for Sonoma Foie Gras describes foie gras as “physiological not pathological” (Sonoma Foie Gras n.d.). There and elsewhere advocates note the tough, expandable esophagi of ducks, geese, and other waterfowl, and their lack of a gag reflex, often conjuring up the image of a heron “capable of swallowing whole, wriggling, spiny fish without damaging its esophagus” (Maduros 2007).

The contested rhetorical recruitment of Nature and Science continues on the website for the Artisan Farmers Alliance, which contains links to an article by researchers at the French Institut National de la Recherche Agronomique (INRA), which surveys scientific research “into whether or not foie gras is or is not ‘natural’” (Guémené et al. n.d.). Their evidence from a range of peer-reviewed animal science journals includes measurements of avian stress hormones following force feeding (little to no change), and assessments of the charge that foie gras is “diseased” liver. In the latter case, these researchers return to the counterargument that claims of cruelty are based on unwarranted parallels between human physiology and that of the ducks and geese that produce foie gras. They note that it is misleading to equate human hepatic steatosis—associated, for example, with alcoholic cirrhosis—with the fattened liver of fish and waterfowl that serves as a form of migratory energy storage and that, also unlike human diseased liver, is fully reversible. “To equate a human pathology with that of certain migratory waterfowl disregards obvious physiological differences between the species” (Guémené et al. n.d.:4).

The kerfuffle over foie gras production has had a concomitant impact on its consumption. Legal restrictions, including the Chicago ban on the sale of foie gras effective as of August 2006, and the impending ban in California slated to take effect in 2012, have pitted personal consumption and commercial marketing practices against the U.S. judicial system, galvanizing alliances of both solidarity and resistance. Efforts to sidestep Chicago’s ban has motivated chefs and foie gras consumers both to flout the ban outright and to look for creative legal loopholes (weapons of the chic?). At popular Chicago restaurant and wine bar Bin 36—in full compliance of the ban on the sale of foie gras—customers can order the wild mushroom confit salad at a premium price, served with complimentary foie gras, a compelling example of the gift subverting monetary exchange (DiStefano 2007). And food bloggers, noting numerous Chicago restaurants with New Year’s Eve menus openly flouting the law by serving up festive fatty liver, referenced an earlier era of lawless consumption in the city, dubbing them “duckeesies” (Weston 2006). Perhaps ironically, from the perspective of foie gras opponents, the current controversy has thrust the fatty delicacy onto center stage in the blogosphere and in the print media, apparently creating a broader consumer base than ever before. According to Michael A. Ginor, co-owner of Hudson Valley Foie Gras in

upstate New York, foie gras opponents "may save American ducks, but the market has grown at least 20 percent since they began their efforts. At the end of the day they have helped increase the popularity of foie gras" (Burros 2006).

Elsewhere, some foie gras producers, vendors, and chefs have tried to engage anti-foie gras demonstrators as potential allies through a shared critique of industrial food production and a local commitment to place. Indeed, U.S.-based foie gras farmers like Guillermo and Junny Gonzalez locate the origins of Sonoma Foie Gras in "the movement in the 1980's toward more fresh, locally grown meat and produce" (Gonzalez 2007:1). In Portland, Oregon, Benjamin Dyer, who owns an upscale meat shop that sells foie gras, hosts the recently launched PBS food show, "The Endless Feast," which celebrates the farm-to-table movement among U.S. restaurateurs working to present cooking based on locally raised ingredients. He and his charcuterie's clients have stepped outside his store to talk with anti-foie gras picketers, setting out to convince them, with some success, that he and his shop were not "the bad guys," since businesses like his (unlike large-scale poultry producers) actively work to encourage small, locally based sustainable farming.

BRAND AND PLACE

The invocation of place by foie gras farmers and vendors also links landed aristocracy and their vintage wine, aged port, or artisanal cheeses (Lave 2005; Paxson 2005, 2006a; Ulin 1995, 2002) to what the French refer to as the "terroir."⁷ The term *terroir*, originating in viticulture, has been imported into neoartisanal enterprises such as those of the small-scale New England cheese makers Heather Paxson is studying. In the words of one cheese maker, they "reverse-engineer the terroir," as they self-consciously invoke the natural-technical traditions of their European predecessors, aiming to recreate traditional production practices *de novo* in contrast to the industrial apparatus of large-scale dairy firms. In apparent contrast to *techne* in its association with a long-standing European focus on land, nation, and tradition, among U.S. artisanal producers this link between craft and terroir has been appropriated as an innovative entrepreneurial strategy. The case can, of course, also be made that 19th- and 20th-century European elites demonstrated their own hegemonic entrepreneurship precisely by putting narratives about land and tradition to use to exert their own control over profitable comestibles such as French wine (Ulin 1995) and Portuguese port (Lave 2005). Some skeptics, like historian Rachel Laudan (2004:140), also point out that this linking of region, local culture, and food, which she calls the "French terroir strategy," is an enormously successful marketing strategy for selling food to the self-identified gastroelites of the First World.

More recently, in the homeland of the terroir strategy, Camembert connoisseurs are up in arms over the decision of two of the largest dairy producers to stop using "lait cru," the raw milk characteristic of "real" Camembert, thereby

giving up the traditional mark of culinary distinction, the "Appellation d'Origine Contrôlée" (Schofield 2007). Here, French industrial dairy producers offer a new chapter to Latour's science studies classic, *The Pasteurization of France* (1984), with *techne* and technoscience as obligatory passage points to rival networks of association. Although the large-scale producers cite "health risks" for consumers, critics point to the profit motive, with the technoscientific processes of pasteurization and microfiltration expanding the limits to mass marketing soft-ripened cheese (while offending the sensibilities of the partisans of artisanal cheese production, who see "lait cru" as a marker of what is distinctively French). As Jon Holtzman, referring to Pierre Boissard's (2003) study of Camembert, notes, "This smelly cheese has become a concrete mythic symbol of the Republic and French national identity" (2006:369).

This issue raised a stir on the lively listserv of the Association for Food and Society, as members debated whether the "real" Camembert was dead, with the advent of large corporate producers, or still lingering with small producers like François Durand, who continue to hand-ladle unpasteurized milk into cheese rounds. The founder of the Camembert Defense organization, Gérard Roger-Gervais, is quoted as saying:

"Look at the cream, smell the odor." ...Holding up a crusty Camembert wedge, he exclaimed: "You can smell the farm, the grass, the cows. The richness comes in the originality, even in the imperfections. This is what we're fighting to preserve." [Sciollino 2007]

This last quote links the *techne* of Camembert production to consumers whose tutored palates and noses can be trained to appreciate the distinctive traces of the terroir in the food they eat, should it be properly prepared. In short, Camembert consumers are exhibiting Marx's insight that production and consumption are mutually constitutive, as we also see in the case of other consumers, like the expatriate Africans in the United States discussed in Elisha Renne's article (this issue).

Time, space, and place also belong in discussions of food and drink as local-global *qualisigns*, to use Charles Sanders Peirce's term, with tradition and identity deployed in branding processes that speak on behalf of regional, national, or ethnic specificity while fully imbricated in processes of globalization and industrial standardization (see Phillips 2006). Elisha Renne's article discusses the commodified invocation of ostensibly timeless traditional West African foods and food preparation techniques, while commercial foodstuffs, which also promise contemporary time-saving efficiencies, are produced and marketed to the diasporic communities of West African immigrants living in North American cities. Richard Wilk says, "One paradox of the marketplace . . . is that the very acts that decommodify—identifying a food as a part of an inalienable *heritage* . . . give them higher value as *commodities*" (2006:20). Yet the roots of this apparent paradox perhaps lie elsewhere in this case. With the reification of history and place of origin, their

decoupling from the lived experience of contemporary African immigrants, they are packaged as nostalgic emblems used to market emblematically modern convenience foods that nonetheless interpellate their consumers as Africans while indexing them as a cosmopolitan clientele, concerned with nutritional content, hygienic packaging, and off-the-shelf convenience.

In the Caucasus, the emergence of capitalist firms and decentralized production in postsocialist Georgia's beverage sector has reshaped local consumption and marketing practices, yielding an array of local beers with branding strategies that interpolate nationalist sentiments with images of "traditional" regional ethnicities, particularly those of the mountain folk who are thought to represent the "true" Georgians. Yet what is interesting here is that the beer that is named for these regions does not attempt at all to emulate local standards of production because the mountain beer itself lacks appeal in urban regimes of taste. Although illustrations of traditional beer-producing apparatus appear in the promotional literature, the beer is actually produced in the style of European lagers. Far from hiding this fact, these producers often trumpet their reliance on the latest German and Czech beer-making technologies while marketing strategies point to territorialized ethnographic traditional *techné*. Paul Manning and Ann Uplisashvili argue that Georgian beer producers "ambivalently ground their products both in European technical modernity and Georgian tradition" (this issue). These branding strategies are less concerned with the specific qualities of the product than they are in producing a dual lineage for Georgian brand products that belong both to Georgian national tradition and to European modernity, simultaneous products of the hallowed *techné* of mountain tradition and the very latest European technology. Georgian branding strategies, then, in these cases are about neither the provenance and qualities of production nor attempts to interpellate certain kinds of consumers. Rather, they function to legitimate, in a sense, the very idea of domestic branded goods, because, in a sense, under socialism "branded" means "Western." Given a distrust of imported food goods, to successfully create a Georgian "domestic brand," the brand must point both to the imaginary West and to the locality.

FEASTING AND LOCAL TRADITIONS IN THE GLOBAL ECONOMY

Michael Paolisso (this issue) discusses the influx of foreign crab into a region, the Chesapeake Bay, where local people retain a strong allegiance to the regional seafood and to its place of origin, the productive estuary itself. Although foreign crab is often used for crab cakes served year-round at Chesapeake Bay restaurants, Paolisso argues that the "regionalizing of the foreign" takes place by shifting attention from place of production and the producers, local watermen, to consumption, through marketing crab cakes prepared by recipes in the "Maryland style" or the "authentic Chesapeake Bay way" (this issue). One of the success-

ful local companies, Phillips Sea Food, has dramatically increased its profits by seeking its crab from East Asia, including the Philippines, Indonesia, and Vietnam. Yet this crab produced elsewhere is nevertheless sold with a recipe for "Maryland-style" crab. Here, locale and production are "covered" by consumption and marketing. Even an ecogastronomic association like the Chesapeake Club—whose ostensible purpose is to save the gastronomic heritage, particularly seafood, and the beauty of the bay—does not address the issue of the primary producers and harvesters of the bay: the watermen. Paolisso argues that while dozens of restaurants have joined the Chesapeake Club, they continue to serve imported crab, and "watermen are increasingly less of that Chesapeake tradition" (this issue).

The hard-shell crab market, despite dwindling stocks and the fact that local crabs are only available from May to October, remains vibrant and important to everyday sociability for locals who have a deep knowledge of and commitment to their region and its produce. Paolisso's article speaks to the networks of association in the Chesapeake Bay that facilitate intimate ties between crab producers, the watermen, the consumers, and, of course, the crabs themselves. The producers of hard-shell crab are valued for their specialized knowledge, which helps them locate the best crab, the "prettier" (larger, fatter, and tastier) crab that consumers often serve hot, steamed, with cold beer, and in the company of good friends. It can be a matter of some anxiety for the host of a crab feast if he or she is not able to locate fresh crab for guests invited for a particular day. Therefore, successful hosts must marshal their connections with watermen to gain recognition from their guests for their skill at procuring "prettier" crabs on a timely basis.

VESSELS FOR SOCIABILITY AND POWER

The role of feasting is also central to Rosemary Joyce and John Henderson's article (this issue). Using archaeological data from Puerto Escondido, an early village in northern Honduras, they track a transformation in consumption patterns through changes in the form of elaborate drinking vessels over a period of some 800 years. The evolution of these beverage containers has a story to tell us about feasting, fermentation, and social-material transformations through regimes of taste and presentation. These changes indicate an epochal shift from an alcoholic cacao beer to a nonalcoholic cacao beverage that is more familiar to us as chocolate, an early valued food commodity that was disseminated quickly throughout the world in a much later period by the Spanish conquistadors.⁸ Joyce and Henderson associate the nonalcoholic drink in ancient Honduras with the expansion of consumption beyond the familial realm and an increase in social complexity, and they argue that changes in the form of drinking vessels and consumption practices indicate both shifts in taste and the emergence of new forms of sociability that emphasized the role of host groups and their socially significant work—likely often done by women—in preparing cacao beverages for their guests.

The decorated rims of the chocolate drinking vessels in the later period, visible only to the guest, and the shape of the vessels indicate a rise in feasting, as the labor of the host is evident in the last-minute, elaborate preparations to raise a tasty and much valued froth on the chocolate beverage, a likely *qualisign* indicating the persistence of a culturally valued preference originating in the naturally occurring froth on the fermented chocolate beer consumed in earlier periods in Puerto Escondido's history. Like Monica Smith's account (2006) of how the cultural taste preferences for rice long preceded shifts in the political economy of rice production in South Asia toward large labor-intensive agriculture and greater social complexity, Joyce and Henderson argue for attending to daily consumption preferences and the acquired taste perceptions that both take shape in the familial realm and give shape to broader social solidarities and divisions. Feasting, they argue, only takes on its status as an instance of extraordinary consumption practices and the labor that produces these meals-as-events in contrast to the preferences and practices, the knowing and doing, of quotidian life.

This association of elaborate drinking vessels with feasting practices is evident in contemporary ethnographic accounts as well. In addition to his examination of branding and the production and consumption of beer in post-socialist Georgia in this issue, Paul Manning (2003) has written about the dazzling array of diverse drinking vessels used in the Georgian ritual feast, or *supra*, with suggestive parallels to the Honduran case. Manning describes "a proliferation in the realm of the *technology of drinking* that borders on a *poeticization* of the otherwise functional domain of drinking vessels" (Manning 2003:6–7). The technologies that set feasting apart from quotidian consumption and production offer material correlatives of the "poetics" of ritual life as well as its particular place in relations and transformations of power/knowledge. In addition, the use of these elaborate drinking vessels, many of which are horn shaped so they cannot be put down before all the wine is consumed, are themselves indices of drinking "differently," as the Georgians put it (Manning 2003:5–7).

DISCOURSES OF NATURE–CULTURE AND TECHNE–TECHNOSCIENCE

Several of these "In Focus" articles address the myriad cultural notions of what is "natural" in food discourses the world over while indexing the complex and sometimes paradoxical coconstitution of Nature and Culture. Chaia Heller tackles this theme in her engaging discussion about French notions of "nature," equated not with wildness but with agriculture; nature is, in her words, "tightly fused with notions of culture-as-agriculture" (this issue). This notion of the "natural"—and the food products associated with it, like Roquefort cheese or fine Champagne—is associated with *techne*, or craft production (*savoir faire*). It is counterposed with technoscientifically mediated assessments of

food quality, associated with GMOs, agribusiness, and what the activist–farmer Jean Bové evocatively dubbed *la malbouffe*, or bad-quality food: fast food, junk food, and industrial production in which food quality is determined not by artisanal craft traditions but by technoscientific discourses of "risk." As Heller notes, *la malbouffe* functions as a kind of keyword in Raymond Williams's sense: a word that not only reflects reality but also constitutes new forms of cultural beliefs and practices.

Heller notes that Bové argues, persuasively to many, that the *techne* of localized agricultural production, rooted in specific places and traditions, can provide an antidote to *la malbouffe*. He promotes artisanal production in France and has achieved worldwide fame as an antiglobalization activist who argues against the practices of the industrial food multinationals, claiming not only that their techniques of food homogenization, or alteration in the case of GMOs, are "unnatural" but also that they are denuded of culture, which is said to be inherent in local products and traditions. The critiques framed by Bové and his followers are echoed in the Slow Food movement, which also derides industrial food and both decries the effect of fast food on the health of individuals and construes it as a threat to local styles of production, tied to a sense of local culture (Chrzan 2004; Laudan 2003, 2004; Meneley 2004; Paxson 2004).

Slow Food "rescues" endangered food species (metaphorically allowing them on what they call the "Ark of Taste"). However, as Alison Leitch (2003) demonstrates with the example of *lardo*, a cured pig fat that was once the staple food of poor marble workers of Carrara, when Slow Food adopted *lardo*, it had unintended consequences, like unhinging it from its past while it became a successful commodity. Sidney Mintz has recently cautioned against the nostalgia of a fast-food–slow-food dichotomy, proposing instead that a more practical goal might be to aim for food of "moderate speed," "good and healthy food, produced locally, for everybody" (2006:10). As Wilk notes, the rather histrionic sense of inevitability, of fighting a "leviathan" of agrofood, comes with a simplistic evolutionary logic (2006:21) that is simply not born out with close ethnographic analysis such as we see in these articles.

The fact that a great deal of technoscientific intervention is necessary to make cow's milk palatable, safe, and transportable in the contemporary global economy is hidden in everyday U.S. citizens' imaginations of cow's milk as a natural product, conjuring up a pastoral bucolic. As Andrea Wiley explores in her article (this issue), cow's milk becomes a sort of "natural symbol" for conveying an intuitive sense of growth, given its role in supporting the growth of suckling mammals. This imaginary erases the fact that widespread cow's milk consumption attended the economic and social transformations under the Industrial Revolution, when two key shifts occurred: (1) increasing urbanization and decline in breastfeeding and (2) the development of pasteurization techniques allowing milk to be consumed as a benevolent food source instead of a

"white poison," as it was known in prepasteurization days. Yet Wiley argues that the widespread notion that cow's milk promotes child growth is based less on solid scientific evidence than on milk's simultaneous symbolic association with both nature and progress, and on clever marketing campaigns and government-sponsored feeding programs like the school lunch program.

Wiley's article takes us from the United States to contemporary China, where milk has experienced a notable growth in consumption among China's growing middle and upper-middle classes in urban areas. This fact is remarkable in the light of the fact that milk was not previously widely consumed within this population, the vast majority of which is, in fact, lactose intolerant. Yet for the affluent Chinese (and those who wish to be seen as affluent), milk consumption signifies modernity, growth, and cosmopolitan affiliations. Growth discourses figure in Chinese official pronouncements that milk can help the Chinese "catch up" in height, therefore encouraging "population quality" (as opposed to quantity as the one child per family rule is still officially on the books). Both Chinese and U.S. advertisements focus on milk as producing growth, with the two national discourses converging in one notable "Got Milk?" ad that features China's most visible international athlete, the seven-foot, five-inch National Basketball Association star, Yao Ming, sporting a milk mustache.

"Nature" also figures prominently in discourses about olive oil explored in Anne Meneley's article (this issue). Closer inspection reveals that here, too, nature is mediated by culture-as-agriculture because olive oil requires considerable technical intervention to extract a food substance long considered delicious and valuable from the otherwise inedible olive fruit. Although olive oil production has changed radically over time, and the current regulations of the International Olive Oil Council mandate technoscientific standards for grading an oil as "extravirgin," the artisanal techniques—the *techné*—of olive oil production long used throughout the Mediterranean littoral are now invoked as markers of distinction in the production and marketing of high-status extravirgin olive oil.

Yet the technoscientific correlates of extravirginity (the acidity level in the oil, determined by chemical analysis) are not enough. To be graded as "extravirgin," an olive oil also has to be evaluated organoleptically as well. A cadre of professional tasters are trained to evaluate olive oil according to taste and smell, reporting their observations in a language very much modeled on "wine talk." As in the case of Michael Silverstein's full-bodied analysis of oinoglossia (2006), talk about olive oil links regimes of scientific, professional, and avocational connoisseurship. Much of olive oil marketing depends on cultivating consumers' taste in appreciating the more expensive extravirgin olive oil, a project that has received a technoscientific boost from medical reports, which continually extol olive oil's healthful qualities, and from culinary professionals' cookbooks, food mag-

azines, and television programs in which olive oil anoints a path to gustatory enlightenment.

CONCLUSION

Jean Anthelme Brillat-Savarin's oft-quoted sentiment "tell me what you eat and I'll tell you who you are" has continuing relevance for French cheese eaters, Georgian beer drinkers, Maryland crab eaters, Italian olive oil producers, expatriate West African *fufu* eaters, and U.S. and Chinese mothers who feel that they are doing the best for their children by giving them cow's milk to drink. Joyce and Henderson remind us that specialized accoutrements for everyday and festal eating and drinking, briskly marketed these days in stores like Williams-Sonoma, have long been an indicator of different modes of consumption and of a transformation in hospitality practices, which can tell us about changes in social complexity and spheres of influence. Across a range of times and places, and for a diverse array of food and drink, this "In Focus" collection casts light on how production and consumption are linked, often to imaginaries of place and tradition. The nature-culture relation, with the classic binary opposition recast as a coconstitutive dialectic, is intertwined in these discussions with artisanal and technoscientific ways of knowing and doing, a semiotic praxis found in both globalized industrial production and in the relocalized distribution and consumption of specialty comestibles.⁹

What Silverstein calls "boutique agriculture" seems to be on menus at every price point, sometimes invoking the cosmopolitan global traffic in comestibles (in which New Zealand lamb might be dressed with Tuscan olive oil or Argentinean beef with French shallots) and sometimes reasserting the claims of local control on regimes of taste, in which even fast-food redemption is at hand, with variably persuasive marketing strategies. We have, on the one hand, the transnational burger franchise Wendy's advertising chicken sandwiches on "artisan bread." Take, on the other hand, the case of Burgerville, a small Pacific Northwest chain of drive-thru eateries that serve "fresh, local, sustainable" meat, eggs, and produce, working directly with local farmers and ranchers and offering customers the cachet of terroir-raised products with seasonal specialties like Oregon strawberry milkshakes (spring), Walla Walla sweet onion rings (summer), and wild mushroom burgers (fall).¹⁰

Many of the small-scale interveners in boutique food production, like Vermont cheese makers and Umbrian extravirgin olive oil producers, try to speak not only to gastroelites but also to local consumption communities. Elisha Renne's article (this issue) talks about West African mass-produced convenience food that indexes tradition, replacing the Manischewitz® Potato Buds that earlier African immigrants to North America used in their efforts to replicate what food professionals call "mouth feel" of traditional starches like *fufu*. Only the images on the labels of these neotraditional food products recall the gendered labor-intensive *techné* that produced the traditional dishes that

they emulate; conformity to the health standards is not only required for USDA regulations but is itself also persuasive to immigrants who constitute themselves as both African and cosmopolitan through the consumption of industrially produced foods that simultaneously index Africa and conform to technological "risk discourses" about food purity. Industrial food production in this instance nevertheless ameliorates the alienation between food producers and consumers by relocalizing African foods for diasporic communities. A similar process is at hand in Georgian beer production, in which the claims to locality are twinned with claims to European production styles, persuasive in a population in which the deregulation that attended postsocialism inspired anything but consumer confidence in local brands.

Our food crises in North America have arisen, as some critics have noted, after the population was well (if not over) fed. The debate about foie gras might well therefore seem a misplaced bourgeois indulgence to those living hungry, or to policymakers concerned about those who do. Even so, a closer examination of the foie gras controversy illuminates the kind of concerns that drive food production and consumption dynamics. While policy interventions appear to be framed in a moral-ethical discourse about animal welfare, the stew over foie gras production is particularly piquant, given the well-documented—and, arguably, more shocking—conditions of factory farmed poultry and beef. Animal-rights activists frequently quote a line in the 1998 report on foie gras production from the European Union Scientific Committee on Animal Health and Welfare describing foie gras production as "detrimental to the welfare of the birds." But, read in its entirety, the report says that "foie gras needs to be produced in order to satisfy the consumers' demand" and notes that traditional force-feeding techniques had been modified, to the detriment of animal welfare, "to rationalise and industrialise the production of foie gras and increase profitability" (European Union Scientific Committee on Animal Health and Welfare 1998). Here, the EU report is aligned with the position advanced by the three small farms producing foie gras in the United States, who count themselves among other artisan farmers in distinguishing themselves from large-scale industrial agriculture.

Mintz's exhortation that we need to consider foods of "moderate speed" acknowledges that the conditions of capitalist production will not realistically support an agenda that calls for the eradication of fast food but that ought to reconsider a state of affairs in which only the gastroelites have access to fresh, local, sustainably produced potables. Marx's insight in the *Grundrisse* about the dynamic interplay between production and consumption is amply illustrated in our collection. As David Harvey notes in *Spaces of Hope* (2000), Marx seems more relevant and prescient than he did in the ostensibly more radical 1960s. The cultural-material engagement between techné and technoscience is very much a part of the everyday work of production, consumption, distribution, circulation, and exchange of

potable commodities. The market for "artisanal" style production seems to expand daily, as producers and advertisers aim to target consumers seeking to overcome what Marx (and Mauss, for that matter) thought was the classic problem with industrial production: the severance of the relationship between producer and consumer. In our examples, we see shifting social-material relations in attempts to overcome that rift, by both transnational and locally oriented producers and advertisers, and by consumers, whether cosmopolitan immigrants, technically savvy artisan farmers, or global activists opposing la malbouffe and GMOs.

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NOTES

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1. A number of the articles in this collection were presented on the panel "Food and Drink: Techné and Technoscience," organized by Deborah Heath and Anne Meneley, for the American Anthropological Association meetings, November 30, 2005, in Atlanta, Georgia. Our thanks to helpful comments from those in attendance and, for her insightful input, to Jean Lave, whose wonderful paper for that panel on the political economy of Portuguese port production we unfortunately could not include here. We are pleased to expand beyond subfield boundaries for this issue with the inclusion of biocultural and archeological perspectives in the articles by Andrea Wiley and Rosemary Joyce and John Henderson. See also Wiley's article (2006) for her account of the harmonious collaborations sustained across subfield divisions with the Society for the Anthropology of Food and Nutrition.

2. Latour, of course, is preceded in this effort by many, including both Aristotle, with his notion of "phronesis," or practical wisdom, and Marx, in acknowledging the creativity within work with our hands, which is subsequently alienated by capital.

3. The significance of the term *technoscience* is the subject of ongoing debate within science and technology studies (STS), much of which is beyond the immediate scope of this article (cf. Barnes 2005; Rheinberger 1997). Barry Barnes provides an overview of recent discussions of the term by Pickstone and others, suggesting that we risk misrepresenting technoscience as a phenomenon specific to the present era. He also points out a recent "inversion of the relative standing of 'techné' and 'epistémè'" (2005:162) as academic scientists no longer claim a privileged position in seeking knowledge for its own sake and no longer strive to minimize their own ties to industry.

4. An excellent example of this conflation of techné and technoscience can be found in Cristina Grasseni's (2005) insightful work on cattle breeding, which focuses on the knowledges embodied in "skills," juxtaposed with practices of technoscientific standardization.

5. Jon Holtzman (2006) makes the case for the role of foodstuffs as markers of epochal change.
6. Our examples focus on U.S. foie gras producers and the debate as it has unfolded in North America. For an informative ethnographic study of foie gras producers in southwest France, see Isabelle Téchoueyres (2007).
7. See Georgina Holt and Virginie Amilien (2007), along with the other articles in the same collection, on the relationship between "local" foods and processes of "localization," with the latter related to processes of both globalization and standardization.
8. See Susan Terrio (2000) for a discussion of how chocolate was adopted with enthusiasm as an essential element of French cuisine, with the eventual development of an association of professional chocolatier craftspeople.
9. Donna Haraway's "naturecultures" and Latour's "socialnature" are key points of reference to this perspective within science studies.
10. View Burgerville's menu at <http://www.burgerville.com/html/menu/seasonal.html>.

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Techne versus Technoscience: Divergent (and Ambiguous) Notions of Food “Quality” in the French Debate over GM Crops

ABSTRACT In the French debate over genetically modified organisms (GMOs), actors present divergent definitions of *food quality* located between poles of technoscience and *techné*. Although scientists often define *food quality* in terms of technoscience, assessing food safety, small farmers often appeal to *technes* of production, positing GMOs as a rupture with artisanal culture. Whereas small farmers (from the union the Confédération Paysanne [CP]) deploy notions of “*techné*” to promote their anti-GMO campaign, they often define *quality* in an ambiguous way, vacillating between ideas of agricultural method (technique) or production scale. Despite this ambiguity, the CP successfully designates GMOs as *la malbouffe*, or “bad” food, establishing themselves as protectors of artisanal *technés* such as Roquefort. Finally, unlike many cultures that cast GMOs as “unnatural,” the CP tends to frame GMOs as “uncultural.” In the French debate, the CP posits culture against a “culturelessness” associated with technoscience and industry-driven foods such as GMOs and McDonald’s. [Keywords: French agriculture, biotechnology, food, quality, technoscience]

WITH THE RISE OF industrial agriculture and the agrofoods industry in postwar France, there has been a gradual, steady explosion of discourse regarding food quality. Debates about food safety gained steam in the 1970s, along with discussions regarding impacts of the industrial model on the vitality of the French countryside, a zone that constitutes a cultural lifeway, an arena of artisanal production, and a profitable national tourist commodity (Mendras 1976). In turn, the rise of processed, “fast,” or mass-produced foods in France sparked discussions regarding a national loss of “taste” and “culture” and a general decline in French food “quality.”

Drawing from ethnographic research, I explore the ways in which the Confédération Paysanne (CP), France’s second largest agricultural union of family farmers, invokes notions of French food quality as part of their campaign against genetically modified organisms (GMOs).¹ In particular, I examine the ways in which CP farmers, marginalized from industrial agriculture, are becoming key actors in reconfiguring new understandings of food quality, establishing themselves as a potent symbol of agricultural *technes*, or artisanal food production.

In exploring the French food quality debate, I examine a series of foundational binaries that circulate through actors’ narratives about GM foods. First, the nature–culture

binary—a dichotomy studied critically by a range of social theorists in recent decades (Bookchin 1982; Haraway 1991; Palsson and Rabinow 1999; Rabinow 1996b; Strathern 1980)—represents a central heuristic through which actors structure their discourses about food quality. As I illustrate, however, this nature–culture binary is shot through with broader discourses of denaturalization and deculturalization, which are associated in turn with ideas of technoscience and globalization.

For instance, actors in the global GMO debate often discuss GM food’s lack of “naturalness,” based on what Donna Haraway (1997) describes as a perceived transgression of natural orders or laws. In contrast, actors in the French case may discuss GM food’s lack of “culturalness” or a GMO’s rupture with artisanal food production. The French case then gives rise to yet another binary, that between *techné* and *technoscience*: an opposition of artisanal *technes* of production as compared to foods associated with technoscience-driven industrial agriculture. In this way, the GMO debate pivots around three binaries: nature versus culture, culture versus nonculture, and *techné* versus technoscience.

Finally, two poles of “food quality” spin out of these three binaries: *techné*-driven food quality and technoscience-driven food quality. Proponents of the

former call for a more “cultural” definition of *food quality*: one based on adherence to traditional agricultural practices. Promoters of the latter, the technoscience-driven food quality associated with GMOs, may assume a more “technical” definition of *food quality*, a meaning more grounded in quantifiable risks to human health and the environment.

It is useful to note here, that *techné* is derived from the Greek word *technion*, which is associated with the term *craft*. For the ancient Greeks, *techné* represented art’s practical application, as opposed to products of human invention produced through rational domains such as geometry or science. In contemporary philosophy, *techné* has been used by theorists ranging from Martin Heidegger (1977) to Murray Bookchin (1982) when distinguishing between technique associated with an artistic, rather than a mechanistic, episteme. *Techné* also echoes with James Scott’s discussion of *metis*, which he defines as local “premodern” forms of knowledge and practice often marginalized by modern state and capital formations (Scott 1998).

As I illustrate in what follows, the CP’s rejection of GMOs and fast food is predicated on the notion that such foods are the negation of *techné*-driven food quality, representing instead the embodiment of technoscience-driven food quality. As instances of “nonculture,” GMOs are “junk food” (or what CP farmer José Bové refers to as *la malbouffe*); they are the antithesis of *techné*-driven food embodied in Roquefort cheese or Champagne.

In France, the natural domain (defined often as that which is “not urban”) is often regarded in agricultural rather than wilderness terms; so French nature is tightly fused with notions of culture-as-agriculture. Agricultural *technes* of production such as Roquefort cheese are thus regarded as “natural-as-agricultural,” as opposed to GMOs, which are often perceived as products of an industrially driven technoscience.

After providing a brief history of the problematization of “quality” in France during the postwar period by powerful institutions, I examine these two poles of quality drawn from *techné* and technoscience. In particular, I examine the prominence of the technoscience definition of *quality* among actors at National Institute of Agricultural Research (the French equivalent of the U.S. Department of Agriculture; hereafter abbreviated from the French as INRA). As I illustrate, such actors tend to invoke primarily technoscience-driven definitions of technical quality to support their claims about food quality.

In the next part of the article, I examine how the CP deploys *techné*-driven food quality to promote their overall agenda and their anti-GM campaign. First, I explore changes in the union’s notions of quality over the past several decades: changes that move from a focus on food production to food consumption. In particular, I examine the ways in which the union struggles to link ideas of food quality with either artisanal *techné* or technoscience. Second, I examine the CP’s anti-GMO campaign, analyzing the cultural place and meaning of the union’s discourses of *techné*-related food quality in the French imagination. I

note that, despite the union’s ambiguous definition of *food quality*, they successfully designate GMOs as “*la malbouffe*,” or bad-quality food, establishing themselves as protectors of artisanal *technes* of food quality.

The CP’s anti-GMO campaign provides insight into the ways in which controversies over food quality are becoming key sites at which activist institutions attempt to regain power and legitimacy in an economic and agricultural milieu from which they are generally disenfranchised. The CP’s story is about how marginalized groups of farmers attempt to define *food quality* in “*techné* terms” to promote models of agriculture that counter those favored by government and large corporate bodies.

THE PROBLEMATIZATION OF “QUALITY” IN POSTWAR FRANCE

The problematization of French agriculture emerges during a period known as Les Trentes Glorieuses (lit., “The Glorious Thirty”; 1945–75). Paradoxically, just at the time when France found economic prosperity and established itself as an agricultural superpower, significant discussion regarding the quality of French food emerged in tandem.

Les Trentes Glorieuses were at least in part facilitated by the Politique Agricole Commun (Common Agricultural Policy; hereafter, PAC), a European-wide agricultural policy encouraging industrial agriculture by giving greater subsidies to large-scale and intensive producers. French agricultural banks, for instance, favored large-scale and intensive enterprises, excluding small farmers from access to low-interest loans (Blanc 1977). By the early 1960s, France had morphed into a heavily subsidized, export-oriented agricultural economy that favored an intensive, chemicalized agricultural apparatus while also promoting a growing agrofoods and fast foods industry (Chavagne 1988).

After resolving its initial problems of production by providing its own “primary materials,” such as grains, milk, and livestock, French government bodies and industry turned its focus to questions of consumption. During the 1970s, marketing agents and corporations began to promote “value-added” products such as processed and prepackaged foods, while also encouraging a French fast-food industry. As sociologist Rick Fantasia (1995) points out, by the early 1970s, French entrepreneurs were successfully imitating the U.S. fast-food model. By 1989, French (or European) firms or investors owned 80 percent of the 777 fast food hamburger restaurants in France, introducing chains with U.S.-sounding names such as “Crip-Crop,” “Dino-Croc,” or “Chicken Shop” (Fantasia 2000).

Those changes in food-production systems had been met with concerns raised by various stakeholders in French society. The growing agrofoods industry brought few economic benefits, for instance, to family farmers. For agricultural unions such as the CP, the new industrial system entailed production surpluses—and ensuing price drops—disenfranchising small farmers along the way. Small farmers

that survived were often those able to establish a niche for themselves by producing artisanal products (Malassis 1997:18) or by supplementing their incomes with off-farm employment.

By the 1980s, supermarkets (which also emerged during Les Trentes Glorieuses) began to gradually replace the local direct-sale market system that had prevailed before the war. Over the decades, these *hypermarchés* have become flooded with industrially mass-produced wines, cheeses, pâtés, and chicken, not to mention a broader array of frozen, instant, and preprepared foods. Cheaper, mass-produced versions of traditional products drew consumer attention away from artisanal equivalents as consumers bought their Christmas *pâté de foie gras* in the local hypermarché for less than half price rather than in the local direct-sale market where farmers traditionally sold their products.

As I note below, although the CP's initial concerns about the disenfranchisement of small farmers constitutes the union's main concern, it is the latter concern about an ambiguously defined and techne-driven food "quality" that ends up constituting the cornerstone of the CP's campaign against industrial agriculture and GM technologies.

The 1980s: Problematizing "Quality" by Powerful Institutions

The problematization of French food quality emerged in the 1980s as a technique of governance (Foucault 1991). As Akhil Gupta illustrates in the case of Indian farmers (1998:293), "quality discourse" can become a technology for depoliticizing and normalizing concerns of small farmers (and those of the general public) regarding the social and political consequences of industrial agriculture.

This particular technique of governance constitutes a response by powerful institutions to "consumer attitudes" regarding problems associated with industrial agriculture—problems that came to a head in the early to mid-1990s (Heller 2006). The Bovine Spongiform Encephalopathy (BSE, or "mad cow disease") scandal that began in 1994 resulted in a significant drop in French beef sales. Subsequently, French consumer magazines and advocates began to discuss an increasing public concern for "quality" products, such as "farm products" and organic agriculture (Marris 2001).

Following the BSE scandal and the subsequent controversy in 1997 surrounding GM crops, "quality" became amplified as a concern not only by consumers but also by government actors and French scientists as well. By the early 1990s, discourses about food quality and food-related risk had become a central forum in which to discuss perceived problems associated with productivist agriculture (Levidow 1997), without directly addressing questions of political and economic power, agricultural inequality, and so on (Jasanoff 2005:95).

As Raymond Williams (1976) suggests, historical processes are not merely "reflected" by language but, rather, occur within it. Williams's concept of "keywords" is useful

in tracing the term *quality*, which indeed circulated through a variety of domains at this time, forming semantic clusters with terms such as *safety* or *risk* by actors operating within a technoscience idiom, while clustering with terms such as *traditional* or *artisanal* by actors defining quality in techne terms.

During this period, governmental and scientific bodies published literature that called for "quality" as the solution to problems associated with industrial agriculture. For instance, a text published by the French Academy of Agriculture, *Two Centuries of Progress in Agriculture and Food, 1789–1989* (1990), called for France to move from a "technological" or productivist model of agriculture to one concerned with "quality." In 1998, environmental minister Dominique Voynet argued for "quality" in her introduction to the Ministerial Report, *Management of the Territories and the Environment*. According to Voynet, "Food self-sufficiency, the principal goal assigned to the PAC in the fifties and sixties, has been not only achieved, but has been surpassed" (1998:14). In light of this achievement, Voynet called for farmers to protect the "vitality of the territory" by promoting ecological agricultural techniques and focusing on "products of *le terroir* and quality labels" (Voynet 1998:8). Guy Paillotin, president of INRA, echoed Voynet in his opus, *Tais-toi et mange! (Shut Up and Eat! [1999])*. Paillotin posited that agriculture can find a new opportunity in "this era of over-production" by "privileging quality and diversity of products that express the particular richness of a *terroir* (or a particular agricultural zone)" (Paillotin 1999:14).

As a technology of governance, "quality" discourse draws attention away from political concerns such as the material and cultural conditions of small farmers disenfranchised from the system. Paillotin, Voynet, and other powerful actors focus instead on "quality," on establishing new agricultural zones for "controlled label status," and on endorsing the creation of new *signes de qualité* (quality labels), such as *produit fermier* (farm product) and *label rouge* (red label associated with items of superior production). Calls for small farmers to become protectors of quality products of *le terroir* serve as distractions from (and compensation for) the political and economic disenfranchisement of small farmers in the postwar period, normalizing their increasingly marginal status.

Techne and Technoscience: Ambiguities of Food "Quality" at INRA

Discourses of food quality are highly context specific. Indeed, for some actors, ideas of food quality derive from agricultural technoscience as the quality of a product is cast in quantitative terms—specifically, in measurable environmental or health risks associated with particular agricultural practices. For other actors, food quality implies techne-driven quality, product quality defined in relation to the scale of production or the degree to which a product has been traditionally cultivated by drawing from local *savoir faire*.

TABLE 1. Comparison of *techné* versus technoscientific notions of quality.

Techné-driven food "quality"	Technoscience-driven food "quality"
cultural, qualitative rationality quality of life for producers savoir-faire embedded in production process	instrumental, calculative rationality product safety for consumers managed risk of production process

Technoscientific discourses about food quality often embody an instrumental rationality, one that normalizes productivist agriculture, for instance, by evaluating it in terms of "calculable" environmental and health risks alone (Heller 2001a), rather than production scale or process (see Table 1). In contrast, discourses about techné-driven food quality often reflect a systemic disenchantment with the instrumental rationality embedded in productivist agriculture itself, promoting a model scaled to support the cultural identities and artisanal practices of small farmers.

During my research stay in France, I interviewed over 50 actors at INRA-Versailles (a research station located just outside of Paris) who were engaged in various aspects of producing *plants transgéniques* (transgenic plants). Interviewees ranged from postdoctoral students to high-ranking directors of research. By casting food quality in technical terms of health and environmental risk or "safety," INRA actors tended to eclipse issues of culture or quality of life associated with the agriculture production process itself. A technoscience-driven notion of food quality fails to address a productivist rationality of industrial agriculture that has historically disenfranchised small farmers, leading to problems of overproduction and price drops. Instead, INRA actors promoted environmentally friendly forms of productivist agriculture, or a GM agriculture, and new "quality" food labels that appealed to consumers' desires for techné-driven quality.

At INRA, discourses about food quality were couched within a technoscience idiom. For instance, the key INRA publication on GMOs, "Transgenic Plants in Agriculture" (Khan 1996), addresses questions of quality in terms of environmental or health risks associated with particular applications of GM technologies. In a section on "Food Quality," the publication discusses the importance of creating "quality" GM products by assessing and monitoring the potential risks by appealing to technoscience:

An essential question concerns the consequences of genetic transformation on the quality of food destined for human consumption. . . . In the case where products are not the equivalent of traditional products, control mechanisms used in all industrialized countries will carefully examine the potential risks. [INRA 1998:15]

Indeed, on-the-ground interviews with most INRA actors engaged in GM-related plant research revealed a profound preoccupation with the theme of technoscience-driven quality. In nearly every interview or discussion

dealing with GMOs, INRA actors equated food quality with food safety, describing a French public that had recently decided that their agriculture had become industrialized and unsafe.

It is crucial to note, however, that INRA actors' narratives were far from monolithic. Instead, their "personal," "off-the-record," and "nonscientific" understandings of food quality were often identical to those of their non-scientific counterparts. For instance, when speaking as "scientists," INRA actors would often assume a technical definition of *quality*. When speaking "personally" as a "gourmand," or when simply chatting over an informal lunch, actors would often switch discursive registers. Reminding me often about U.S. citizens' "lack of food culture," actors would discuss the robustness of French food quality associated with techné of artisanal production. I refer to this discursive switching as "discursive compartmentalization" (Heller 2004), a phenomenon in which actors change discursive frames according to the specific position of cultural expertise from which they are speaking at a particular time.

Indeed, when speaking "as scientists," many INRA actors' narratives would begin with a discussion of the publics' questioning of industrial agriculture (and of GMOs), locating this problem within a context of overproduction: a context in which the public can "afford" to demand fewer food-related risks. For INRA director of science research, Roger D., the GMO debate emerges out of a postscarcity situation in which consumers no longer accept a "risky" productivist agriculture:

And so now, consumers are demanding to know what is on their plates. . . . Now the French consumer has had enough of the risks. They want to know what is on their plates. They want a quality product. And the issue of GMOs finds itself within this debate. [Roger D., personal communication, February 12, 1998]

In a conversation with an INRA postdoctorate researcher, Sylvie M., she shifted focus to considering how issues of quality and environmental protection can solve problems of technical quality associated with overproduction:

We already have too much food. We have stocks and stocks of wheat. I think it should be about producing better, not more. We should be producing better quality, using less pesticides, for instance. I think it's good for researchers to be looking into environmental problems. [Sylvie M., personal communication, March 2, 1998]

In many narratives, actors discuss INRA's shift from an emphasis on "quantity" to one of "quality." For INRA research director, Edouard L., "quality" is the solution to public concern with problems of food safety, environmental pollution, and overproduction associated with intensive agriculture:

Due to mad cow, citizens are asking where agriculture is going. They are concerned about pollution and problems of overproduction, about a loss of quality. And so now, INRA does more research and sells their findings,

about how to improve quality. That's the new focus here.
[Edouard L., personal communication, April 4, 1999]

Although most INRA actors discuss INRA's intention to produce better technoscience-driven quality, there were some who expressed a desire to improve the techne-driven quality of products by encouraging small farmers to produce artisanal "quality products." Yet discussions of artisanal quality tend to be highly instrumentalized, framed in terms of product profitability. Here Henri P. (an INRA environmental expert) infuses a discourse about techne-driven quality with an economistic discourse about the potential profitability of producing farm-made products with added value:

At INRA, we're saying that there should be agriculture of quality. For instance, you make more money from producing pâté de foie gras than you do by simply raising a duck. The same goes for wine or cheese. When you eat a preprepared meal, for instance, you are paying Danone not for the basic food product, but for the packaging, the advertising, transport, etc. With foie gras, you are paying for the work of the farmer. [Henri P., personal communication, May 21, 1999]

Before concluding my discussion of INRA actors, it is worth adding that the concept of the "GMO" was at the time a relatively new cultural entity in the scientific world. Although most INRA actors had recently become accustomed to discussing GMOs and food quality with reporters and in other public forums, most reported that they had been drawn into a foreign debate with which they had nothing to do. Despite the fact that they had become cultural symbols of GMOs in the French media, INRA scientists generally felt misunderstood, wrongly accused, and generally confused by the commotion. One day over lunch, Henri P. articulated the sentiments of many:

We had never even heard of a "GMO" until reporters started coming in here to ask us about them. The Confédération Paysanne, they think we make "GMOs." I have always worked on transgenic plants that have nothing to do with food at all. Why are they (the reporters and farmers) accusing us? All I do is work on understanding the genetic structure of a plant, understanding specific genetic mutations. They blame us because they have nowhere else to go. Why don't they ask American companies that actually produce them! [Henri P., personal communication, April 18, 1999]

Indeed, many at INRA-Versailles utilized transgenic methods in researching the plant model *Arabidopsis*, a scientifically useful plant owing to its relatively simple genetic structure. I met no one at INRA who was conducting research or development on genetically engineered food such as corn, soy, or canola (the crops on which the controversy was based) per se.

THE CONFÉDÉRATION PAYSANNE: AGRICULTURE PAYSANNE AND (AMBIGUOUS) NOTIONS OF FOOD QUALITY

As we have seen, problematizing food quality is a technique of governance, a means by which powerful institutions problematize, normalize, and depoliticize social and political issues associated with industrial agriculture. In what follows, I illustrate the ways in which the CP deploys discourses of food quality as a technique of resistance, a means by which the union asserts the legitimacy of small-scale agriculture within an agricultural system dominated by large-scale intensive producers.

The CP was formed in 1987 by a network of family farmers across France who had been disenfranchised from the industrial agricultural model promoted by the French and European subsidy and loan system. Reclaiming the pejorative or "backward" term *paysan*, peasant, the CP redefined the paysan as a worker-identified farmer standing in solidarity with international peasant and indigenous groups struggling to protect traditional lifeways affected by both industrial agriculture and the governmental policies that promote it (Heller 2005).

While positioning itself in relation to large-scale agricultural production on a national level, the CP also has an international scope and vision. The CP was key in founding the European Peasant Coordination and Via Campesina, two NGOs that are cornerstones of the wider international antiglobalization movement that focuses on the rights of peasants and indigenous people internationally.

Shifting from "Quality of Life" for Producers to "Quality Foods" for Consumers

The CP underwent a primary shift in recent decades regarding their discourses of food quality. Beginning in the late 1980s and early 1990s, the CP moved away from a production-centered discourse that emphasized the farmer's right to production and to a "quality of life." In this shift, they adopted a more consumer-oriented food discourse: one that emphasized the consumers' demand for "quality" food. In adopting a consumer-oriented discourse, the union adopted an increasingly ambiguous definition of *food quality*, one that equivocates between notions of agricultural techne and technoscience.

To examine this shift, I first explore the union's initial emphasis on production, and the accompanying demand for "quality of life" for small producers living in rural areas. When first founded in 1987, the Marxist-oriented CP demanded for paysans the same right to produce as other laboring societal sectors (Heller 2001a). Their ongoing focus on production scale (a demand that farm subsidies be distributed among the greatest number of small farms, rather than among fewer large farms) reflects their belief that agriculture and rural life should constitute a quality of life available to the greatest number of French citizens (Aubineau 1997). Currently, this lifeway is inaccessible to most paysan families, as over 50 percent of spouses living on family farms

are obliged to work part time, off the farm, in factories, transportation, retail, and so on. In such cases, one full-time worker can "afford" to be employed on the family farm (Dufour, personal communication, October 12, 1998).

Questions of production scale and quality of life for farmers are central to CP discourse. At any CP action, demonstrators may be found singing, "Trois petites fermes, c'est mieux qu'une grande," which translates to "three little farms are better than a big one," was the CP's anthem in the late 1980s, and is still sung during CP actions addressing problems related to French and European agricultural policy. However, by the early to mid-1990s, the union began to shift from a primary emphasis on production scale and quality of life for producers toward the adoption of a more consumer-oriented discourse.

Seeking alliances with consumers' associations and government bodies intent on shaping consumer behavior amidst various food controversies, the CP was determined to establish for itself a distinctive niche within the broader productivist landscape: a niche that France's largest productivist agricultural union, the FNSEA (National Federation of Agricultural Enterprises), could not hope to occupy.

Note that this discursive shift in emphasis (from production to consumption) is implicit, rather than openly discussed within the CP. At no time during my research did actors ever discuss the union's increasing focus on consumer-related food quality. When questioned about this rhetorical shift, many key CP actors appeared perplexed or even slightly amused by the observation.

As early as the 1970s (previous to the founding of the CP), French family farmers in various movements tried to encourage consumers' associations to broaden their understanding of quality to include questions of production scale and to define quality foods as not only technically "safe" but also as promoting the livelihood of small farmers. As CP farmer Jean Caberet explains, 1970 was a pivotal year for family farmers struggling to position themselves in relation to consumer organizations and in relation to risk-oriented technoscience-driven quality:

In 1970, the UFC did a boycott on chicken and veal (due to hormones used in the production process) and this hurt paysans a great deal. Prices fell. And so paysans became very sensitive to problems of quality. You see, since the 1960s, we were told to produce and produce, without thinking about quality. And in the end, prices fell, and consumers were not happy with the quality. And so we had to rethink productivism and quality. And we also learned that we had to work with consumers, to make sure our actions supported each other. [Jean Caberet, interview, February 9, 1999]

The CP struggles to define *quality* in a way that aligns the interests of paysans and consumers. In May of 1999, at a conference about GM-related agriculture and health sponsored by Stop! A la PAC Folle (the words *PAC Folle* is a play on the term *Vache Folle*, or "mad cow"), there was a clash between production and consumer-oriented framings of "quality." Below, Pierre-Andre Deplaude (CP national

secretary) and Marie-José Nicoli (president of the Union Fédérale des Consommateurs, France's largest consumers' union) present a production versus consumer approach to quality:

Deplaude: We want all paysans to be able to produce quality products, but we also want to be able to generate employment for paysans as well. We cannot forget this. You could have industrial agriculture produce quality products as well. But this is not at all what we seek.

Nicoli: We are not necessarily opposed to an intensive agriculture. We just want to have diversity and quality. The issue is health safety for everyone. Consumers shouldn't have to worry about whether they are going to be allergic to their food or whether they will become resistant to antibiotics. As consumers, we want it all! ... I'm sorry, but paysan products are just too expensive, Sir! We want a diversity of choices, we want safe products, affordable products.

Deplaude: You have to understand that there is a problem of unemployment among paysans. That paysans are disappearing. No one talks about this. Agriculture loses four times as many jobs a year than any other profession. Madame Nicoli, I find your position toward GMOs to be contradictory. We must be critical of industrialized agriculture. We must be sensitive to the death of the paysan. [Field notes, May 7, 1999]

By invoking a rationality of solidarity-based production, Deplaude calls for consumers' associations such as the UFC to incorporate discourses of production scale into their notion of quality in support of small farmers. Nicoli responds by invoking a technoscience-driven notion of quality, drawing on instrumental and economic rationality of individual choice. For Nicoli, the scale of production is irrelevant to matters of food quality. Instead, a quality product is one that prioritizes issues of product safety, rather than paysan *solidarité*.

To address these conflicts, the CP initiated in 1992 an alliance between paysans, consumers' associations, and ecology groups called "l'Alliance Paysan, Écologistes, et Consommateurs." According to CP organizer Jean-Damien Therreux, who heads up the GMO campaign, the Alliance came out of a desire to foster solidarity between groups addressing issues of food and agriculture:

In 1992, we created the Alliance, along with other groups. We did it to try to circulate other discourses, to show that it's important to promote good quality as well as good prices. Consumers and environmentalists don't know that much about agricultural policy, they don't really understand what productivist agriculture is. They don't understand how it affects paysans as well as product quality. [Therreux, personal communication, October 11, 1999]

Defining *quality* in a consumer-driven market is not an easy proposition. For the CP to gain the support of consumers' organizations, they must convince consumers that paysans can produce affordable products comparable to those produced by heavily subsidized industrial farmers: the same farmers that have put them out of business because of their ability to produce more for less. At the same time, the CP must present itself as producing a distinctive product, one different from the one produced by FNSEA industrial farmers. In so doing, they must equate industrial food production with low food quality. Although a tempting strategy, most CP farmers are well aware, as Deplaude admits above, that industrial farmers could indeed mass-produce "quality" products—if indeed it is technoscience, rather than techne of production, that define *food quality*.

Agriculture Paysanne: CP Understandings of Food Quality

By 1999, the CP considered how best to publicly assert CP product quality within the consumer milieu. Internal discussions had emerged within the union about the possibility of establishing a French food quality label (*signe de qualité*) specifically for CP products: one that would be distinguishable from organic labels and from "sustainable agriculture" (an idea many CP actors associate with Britain and northern Europe). This reliance on *signes de qualité*—such as the *appellation d'origine contrôlée* ("term of controlled origin," established in 1919)—has long been a strategy by which French farmers have been able to both reify and secure agricultural products and markets by establishing an almost primordial link between product and *terroir*, a term that refers to a specialized agricultural region such as Champagne (Ulin 1997).

This CP label would be anchored in the union's central platform, Agriculture Paysanne (AP). The AP platform made its first debut in 1987 at the CP's founding meeting in Rennes. AP constituted a system of worker-identified small farmers expressing solidarity with sustaining the lifeways of small farmers. Over the next decade, the CP further refined AP, presenting in 1998 the Charter for Agriculture Paysanne That Respect the Farmer while Meeting Societal Needs to CP membership (see Bové and Dufour 2001:204). AP promotes the CP's agricultural model as a global alternative to industrial and intensive farming models within the context of P&C and policies related to the General Agreement on Tariffs and Trade (GATT).

AP thus defines the criteria associated with CP food production that, presumably, would be incorporated into a CP food label. To understand the potential meaning of such a label, it may be useful to briefly explore the ten key principles that comprise the AP platform. These principles present a distinct divergence from other anti-industrial agricultural discourses—such as sustainable or organic agriculture—that generally define *food quality* by invoking technoscientific ideas of toxicity, chemicalized artificiality, or the inverse, naturalness.

The Ten Principles of Paysan Agriculture:

1. production and distribution that allow for the greatest number of farmers to earn a viable income;
2. solidarity with farmers in Europe and the rest of the world;
3. respect for nature that will ensure its use by future generations;
4. diligent use of rare resources;
5. transparency in all relations of purchasing, production, processing, and sale of agricultural produce;
6. ensuring the good quality, taste, and safety of all produce;
7. maximum autonomy for farmers;
8. partnership with other sectors living in rural areas;
9. maintenance of the diversity of animals, plants, and land for both their historic and economic value; and
10. remaining conscious of the long-term and global context.

[Bové and Dufour 2001]

AP departs from sustainable and organic agriculture discourses by emphasizing the idea of production scale rather than production methods: for instance, sustainable methods are generally regarded as those utilizing techniques that cause the least physical harm to present and future lands, waterways, workers, and so on. For the CP, the question of scale is a social, rather than primarily technoscientific or environmental, concept, reflecting a form of social solidarity, a collective concern to increase the overall number of farmers employable within a given region.

Significantly, the idea of "organic agriculture" is not a necessary component of AP. Once again, the CP represents a sharp departure from small farmer movements in northern Europe, Great Britain, or the United States, which tend to identify with organic agriculture as the primary alternative to industrial farming. In fact, only a minority of CP farmers utilize organic farming methods. Although many regard "organics" as too expensive and impractical, others choose to focus their energy on reinvigorating a rural world around a small-scale model.

AP also diverges from sustainable and organic agriculture discourses in its understanding of "nature." Out of the ten AP principles, only one makes explicit reference to "nature," positing it as integral to the agricultural context, rather than standing in inherent opposition to it (see principle 3). The other more indirect reference (principle 9) represents a call to maintain diversity of animal and plant species for distinctly social reasons ("historic and economic value").

Yet although "nature" is not central to AP discourse, the way CP actors portray "nature" is of tremendous political significance, as they invoke keywords such as *nature*, *rare resources*, and *diversity* (see principles 3, 4, and 9), terms that became increasingly salient in Europe during the 1990s. In light of new European discourses on environment and nature, CP farmers refer to the "diversification" of rural areas through European and French agricultural policy as "multi-functionality," the elaboration of paysan tasks beyond the primary activity of production.

Agricultural multifunctionality implies several things. First, it suggests techniques of production, the idea of adding value to farm products such as milk or meat by producing artisanal cheeses, meats, and pâtés. Second, *multifunctionality* entails ideas of rural restoration and maintenance subsidized by the European Union. The inclusion of these environmentally oriented keywords into the ten principles of agriculture paysanne signals the CP's attempt to establish itself as a powerful conduit of national and European agricultural policy.

Protecting the French landscape (in addition to maintaining the quality of French food), then, becomes a central component of CP policy. In addition, the union takes up keywords such as *transparency* (found in principle 5), terms often found in politicized circles. By the 1990s, the term *transparency* (clustered together with other words such as *quality* and *safety*) had become a keyword in governmental, consumer, scientific, and corporate circles during the food scares associated with productivist agriculture. These crises began in the 1970s with the first hormone-treated veal affair and continue today in the furor over hormone-treated beef, mad cow disease, and GMOs. The CP incorporates transparency into their ten key principles and includes the term in their substantial consumer-oriented discourse used in general communications with the press.

Notions of multifunctionality signal the CP's move away from its initial focus on production and fair wages. In the AP charter, a section entitled "Farming to Serve Society" concludes with a telling statement:

To respond to the needs (of society), farming produces two types of goods: commercial goods (foodstuffs) and non-commercial goods (environment, landscape). [Confédération Paysanne 1998]

Thus, among the many goals of the CP, at least three are quite apparent. In addition to seeking employment for small farmers and producing "quality" foods appealing to consumers, the CP seeks to engage in landscape preservation.

For many CP farmers, multifunctionality represents a necessary means of economic survival. CP literature thus frames multifunctionality optimistically, portraying it as a form of land-based stewardship. Other CP members, however, share a more pessimistic view of multifunctionality. Former CP national secretary René Riesel, in particular, spoke candidly about multifunctionality as entailing paysans beginning to "play the multifunctionality game by becoming gardeners rather than farmers . . . becoming little show pieces in the countryside, becoming 'museumified' " (Reisel, interview, March 3, 1999).

The CP's choice to become multifunctional in regards to food production and landscape preservation represents another shift in union discourse away from a production-centered discourse that privileged the quality of life of the small farmer who earns a fair wage by producing food exclusively. We can best observe this shift in emphasis by examining an excerpt from the 1989 version of the AP charter.

Here, CP actors describe agriculture in philosophical terms (as a pleasurable lifeworld) rather than as a multitasking strategy that obliges farmers to navigate their way through supranational subsidy bodies:

That work be pleasurable is perhaps the "most" important thing. Economics and productivity are meaningless if working conditions are physically or psychologically painful. Quality of life means choosing to value life, it's a balance between work, leisure, culture, and engagement in the world. [Confédération Paysanne 1998:9]

In the above passage, the CP articulates a particular rationality of agricultural production: that agriculture is not simply a technical means of production but a quality of life in itself. The CP's original emphasis on production scale stemmed, at least in part, from the fact that it would allow the greatest number in rural areas to enjoy a pleasurable quality of rural life.

Ambiguous "Quality": Production Scale or Method?

Of all CP discourses, those regarding quality are perhaps the most ambiguous and contradictory. Although the CP attempts to establish itself as a key expert on food quality when among powerful institutions, its notion of "quality" is not defined in technical, artisanal, or organic terms. The contradictions found in discourses about scale and method among various CP actors—and between public CP policy and private CP practice—appear to be implicit ones. I rarely, if ever, heard a CP actor point to or reflect on the ambiguity of the term *quality* and its equally ambiguous criteria based on agricultural scale or method.

CP discourse embodies an unarticulated tension between the following: (1) questions of agricultural method (i.e., utilization of chemicalized or organic methods and degree of agricultural intensity such as the number of animals being raised on a given plot of land); (2) questions of production scale (the actual size of the plot of land being used in agricultural production); and (3) the relationship between these two and the broader issue of food quality.

Although CP literature often suggests a necessary link among these elements, many CP farmers note, off the record, that the CP intentionally does not clearly define criteria regarding CP production scales or methods. Whereas some CP farmers own or rent relatively large-scale enterprises (although not comparatively as large as those held by big producers in the FNSEA), many others use chemical inputs and even farm intensively, albeit on relatively smaller plots of land.

This hesitance to determine specific standards for farm scale or method is apparent when reading the ten key AP principles. As many CP farmers suggested to me, this hesitance is because of the union's valorization of inclusivity. By avoiding clear criteria on production scale and method, the CP is able to include a diverse range of small farmers struggling to survive by utilizing a variety of farming strategies.

The union's ambiguous definition of *food* is particularly apparent in a 1998 AP pamphlet. The section entitled "Products of Quality" demonstrates the union's awareness of the word *quality* as a marketing tool, a technoscientific notion of safety, an assertion of cultural discourses surrounding taste, and even a vague assertion regarding production scale and intensity.

The idea of quality is increasingly used as a marketing tool. Often, it conjures a simplistic idea, image, or guarantee of quality. Without strictly codifying this notion of quality, we assert that it addresses, at the very least, issues of taste and safety. The concern of agriculture paysanne is to promote production systems not on the basis of marketability, but on the basis of safety and taste. The first goal is to eliminate the agricultural causes of certain food dangers, certain food components consumed by the population. The size of the farm, as well as the level of intensity, are directly linked to the product quality. [Confédération Paysanne 1998:8]

Although critiquing marketing agents' instrumental and simplistic use of the term *quality*, the CP itself veers toward making similar assertions. Although positing that production scale and method (intensity) are "directly linked" to food quality, the authors do not determine what those links might be. In this AP charter, the authors fail to identify which scale or methods are to be associated with product safety and taste.

Establishing the value of small-scale farming in a world increasingly dominated by large-scale agribusiness is challenging, particularly when large-scale agribusiness can mimic "alternative" methods such as organic (Pollan 2006) or even artisanal agriculture. As it attempts to assert the distinctiveness of CP food quality, the CP often finds itself on shaky discursive ground.

In the spring of 1999, at a meeting at the CP headquarters in Paris, a group of paysans were discussing the CP food label idea. At one point, one of the national secretaries turned to the rest of the group and said,

You know, eventually, the big growers and the agrofoods company will create small-scale production lines of artisanal products, or they will produce non-GMO and organic products. Big producers can produce "quality" if they want to. It's just a matter of time. [Field notes, May 20, 1999]

The rest of the group sat quietly for several seconds, shaking their heads in knowing disbelief. Finally, one of the other national secretaries summed it up when he uttered one of my favorite sayings, "N'importe quoi," which in this context meant something like "they'll do anything . . . anything at all."

Although CP actors use discourse on "quality" to bolster claims about France's need for paysan farmers, the union's discourse is weakest when it attempts to make technical claims about quality related to agricultural methods. As noted below, despite these manifold contradictions, the CP successfully deploys a consumer-oriented discourse on techne-driven quality after 1999, establishing itself as a nec-

essary niche within a broader agricultural landscape dominated by technoscience-driven agribusiness.

THE CP'S ANTI-GMO CAMPAIGN: TECHNE VERSUS TECHNOSCIENCE

By becoming spokespeople for food quality, the CP hopes to establish a legitimate and economically tenable position for family farmers in French society. Toward this effort, the union began in the 1990s to establish themselves as a symbol of artisanal techne of production, presenting themselves to the public as small farmers who produce "value-added" farm-made products. The CP's anti-GMO campaign illustrates the ways in which the union appeals to often ambiguous understandings of food quality in their attempt to establish themselves as key players in international debates about GM foods.

Before exploring the CP's use of ambiguous food quality, I will briefly contextualize the CP's anti-GMO campaign. Agricultural biotechnology represents a strategy devised by governments and corporations searching for new domains of capital accumulation during the postindustrial years of the early 1970s. Rather than seek primarily to increase agricultural productivity (the main objective of industrial agriculture), agricultural biotechnology seeks to enhance the ability of corporate and government bodies to monopolize seed production (originally the domain of public institutions such as the U.S. Department of Agriculture and small regional seed companies) and to create highly specialized seeds and chemical inputs designed for large-scale agribusiness.

Whereas agricultural biotechnology builds on and retains previous industrial models of intensive large-scale agricultural production, GM technologies are designed as well to benefit large-scale agrochemical and biotechnology industries abandoning Fordist forms of vertical integration for new globalized chains of commodity production (Heller 2001b).

Agricultural biotechnology was first largely developed in the 1980s by small start-up companies in California's Silicon Valley, which were eventually bought up by multinational agrochemical companies such as Monsanto and Novartis (Rabinow 1996a). By the fall of 1996, these multinationals began to export their first generation of GM crops to Europe in the form of GM seeds for cultivation and food products processed primarily with GM soy and corn. As the first shipments of GM products arrived on French soil, French NGOs were already plugged into an international network of anti-GMO activists located in countries including southern India, Europe, the United States, Canada, Australia, Japan, Brazil, and Mexico. Greenpeace-France greeted the first ships carrying GM seeds on shore dressed in white hazard gear, gleaning considerable national press along the way.

The CP formally launched its own anti-GMO campaign in 1997 (Confédération Paysanne 1998). Although their early campaign tended to emphasize issues of food risk,

appealing to the authority of science experts (a dominant trend in the overall debate during this period), their later discourse emphasized questions of food quality, drawing from their own forms of cultural expertise (Heller 2001a).

The union's success at establishing themselves as the key spokespeople for the anti-GMO movement in France (and throughout Europe and much of the world) was tied to a series of events surrounding one of the union's key activists, a Roquefort milk supplier from southern France named José Bové. Already known in France as an anti-GMO activist, Bové was arrested in August of 1999 for "dismantling" a McDonald's in the southern town of Millau. The 300 activists that accompanied Bové in prying off signs and tiles at the building site that day were contesting the decision of the WTO to place a hefty surtax on Roquefort cheese, the mainstay of the area's income. According to the CP, this surcharge resulted from U.S. pressure on the WTO to punish Europe for banning U.S. hormone-treated beef (Heller 2001b). Bové rose to stardom when he forfeited bail, choosing instead to remain in prison for three weeks. During his imprisonment, the union stood behind Bové, organizing and galvanizing supporters, as his cause came to symbolize the fight of French food quality against industrial agriculture symbolized by McDonald's, the WTO, and U.S. multinationals such as Monsanto.

Techne-Driven Agriculture and the Rise of La Malbouffe

Bové popularized a unique anti-GMO discourse by linking issues of food quality to perceived problems of globalization. By 1999, Bové had become a key spokesperson for national and international anti-GMO and antiglobalization networks. The centerpiece of his discourse is the term *la malbouffe*, which literally means "bad quality food" and which he equates with GMOs, McDonald's, and all products of industrial and GM agriculture (Heller and Escobar 2003). *La malbouffe* is the antithesis of an agriculture associated with such artisanal products as Roquefort cheese.

By the end of 1999, *la malbouffe* constituted what Raymond Williams refers to as a keyword, a potent term found in semantic clusters with other highly salient terms that together do not merely reflect social reality but, rather, constitute new forms of cultural beliefs and practices through their usage (Williams 1976). In June of 2006, a Google search summoned up 34,200 references to *la malbouffe*. A perusal through the virtual pages of *la malbouffe*-related links shows a panoply of discourses about problems associated with French food quality—all of them traceable to Bové's original narratives about the crisis in French food. The first page, for instance, yields headers such as "*la malbouffe dévastatrice*" (*la malbouffe*, the devastator) that address "the link between food security and *la malbouffe*" and "*les méfaits de la malbouffe*" (the evil doings of *la malbouffe*). Such virtual pages often discuss problems related to the quality of French wines and associated issues

of maintaining the aesthetic value of French agriculture (Heller 2006).

In addition to its tenure as a media magnet, the term *la malbouffe* has had an impressive activist career as well. In November of 1999, a few months after the McDonald's incident, the CP illegally shipped (at Bové's prodding) 300 kilos of Roquefort from the Papillon Roquefort Company over the border to the Seattle WTO meetings, circumventing Clinton's extra tariff that had raised the price of Roquefort almost threefold (Heller 2004:94).

In each media appearance that week, Bové discussed the need to counter *la malbouffe* with quality food such as Roquefort. As a producer of ewe's milk for Roquefort cheese, Bové is linked to a particularly potent cultural symbol. As the first French product to achieve controlled origin status (*appellation d'origine contrôlée*) in 1921, Roquefort embodies artisanal ideas of "le terroir," the distinctive geography of a French region, that, when combined with the traditional *savoir faire* of the French paysan and artisan, renders products of French high culture such as wines, cheese, or pâtés (Hervieu 1996). To receive controlled origin status, Champagne can only be produced in Champagne, Bourgogne in Bourgogne, and Roquefort only in one particular arid zone in southern France.

Through the idea of "*la malbouffe*," Bové both articulates and reconfigures a set of cultural concerns about the survival of *technes* of agricultural production. *La malbouffe* stands for a perceived placelessness associated with industrial agriculture-associated products such as GMOs as well as "fast" and processed foods. For Bové, the antidote to *la malbouffe* is a food quality associated with agricultural *technes* of production deeply rooted in specific times, places, and traditions associated with peasant and indigenous food practice.

The Unique Place of Technes of "Food Quality" in the French Nature-Culture Configuration

To better appreciate the cultural salience of *la malbouffe* and its meaning within the French GMO food quality controversy, we will now examine the specific place of "culture" and "nature" within French society. In France, the GMO debate is framed in primarily agricultural terms, as paysans constitute the key spokespeople for the cause. In contrast, in countries such as the United States, Australia, and those of the United Kingdom and northern Europe, ecology groups primarily rally the cause. As I note below, the emergence of CP paysans as key symbols for the anti-GMOs movement in France is linked to local understandings of nature, culture, and their relation to food quality discourses (Heller 2006).

GMOs are uniquely located in the French imagination in relation to the nature-culture dichotomy. Although most anti-GMO activists define GMOs as examples as poor food quality, what they mean by *quality* differs in some significant ways. For most northern European (as well as British, U.S., and Australian) anti-GMO activists, GMOs represent

poor food quality because they are unnatural. In contrast, for French anti-GMO activists, GMOs are examples of poor food quality (or *la malbouffe*) because they are noncultural.

Clearly, there is no monolithic “French” understanding of nature and culture. However, in my research with both French paysans and actors involved in a variety of governmental, scientific, consumer, and corporate forums, I uncovered among actors a unique nature–culture configuration that departs from the “classical” Western nature–culture dualism (Strathern 1980).

As Marilyn Strathern illustrates in her canonic work “No Nature, No Culture: The Hagen Case” (1980), the nature–culture dualism represents a distinctive Western way of organizing reality. Drawing from Strathern’s crucial insights, I note in my own research that although the nature–culture dualism is indeed a Western construct, it tends to be organized in two primary ways: presocial and social. Whereas many in the West posit “nature” in opposition to “culture,” others in the West construct “nature” in more social terms.

In the latter case, nature stands in historical continuity with culture, as the two ideas are linked together in the idea of agriculture. French nature romanticism indeed tends to portray nature as *le terroir*, a particular agricultural region associated with specific forms of artisanal food production. This social understanding of nature suggests what Neil Smith refers to as the social production of nature (1996:49), the socialization of nature through human activity or labor.

In my discussions with actors regarding the French anti-GMO movement, they would often appeal to a reified “French nature,” in their attempts to explain why the ecology movement is less prominent in France than in “Anglo-Saxon” countries, or why French people have a particular relationship to ideas of food quality. For Pascal R., a key INRA researcher, the question of ecology is different in France because of France’s lack of nature:

You see, there is no nature in France. There are still some valleys, some ravines, and a few forests, but they are quite small, just a few hectares. The environment in France is a product of systems of human practice and so you can’t treat the environmental question like you can in other countries, the Anglo-Saxon countries. [Pascal R., interview, May 12, 1999]

In the West, then, there are two primary understandings of nature: one precultural and one cultural. In addition, there are two primary understanding of culture: one based on the Germanic notion of culture as *kultur* (inherited essence) and one on the French notion of culture as *cultiver* (process; see Pandian 1985:30).

French understandings of culture-as-cultiver find their origins in the preclassical Latin term *cultus*, which has two meanings, one material, one semiotic. First, *cultus* refers to the cultivation of the material or biological world. *Culture* is the term for both an agricultural crop and for the micro-organisms used in the fermentation process required for making cheese and wine. Second, *cultus* implies the idea of

developing cultural knowledge. To be cultured, then, is to be cultivated, to have developed an understanding of cultivated things, such as French wine, cheese, literature, or philosophy.

In turn, the 18th-century French notion of “civilization,” derived from the Latin *civis* or *civitas*, is in turn linked to the idea of “cultiver”: the notion of modern progress as a universal process of development. Rather than constitute a national or cultural essence, civilization represents a developmental process, a model of upward mobility constituted by stages of human development (Pandian 1985).

As we have seen, French understandings of nature and culture put a unique spin on the Western nature–culture dualism. Instead of a fundamental tension between nature and culture, the two categories are understood as two dimensions of one continuous process of development that entails the nurturing of both material and semiotic worlds. Again, instead of a binary between nature and culture, France is marked by a binary between culture and nonculture, between people and things that are cultivated and not cultivated.

In questions of French food quality, then, the primary opposition is not necessarily between natural and unnatural foods but, rather, between cultured and noncultured foods, the latter associated with technoscience-driven agribusiness. Thus, in the French nature–culture configuration, GMOs are *la malbouffe* not necessarily because they are unnatural but, rather, because they are perceived as noncultural. They are patented biological commodities, products of sterile laboratories, designed to fit every climate of monocropping agriculture. For Bové, GM agriculture is an “immutable mobile” (Latour 1987), wiping out small farmers everywhere, perpetuating a model of agriculture that turns rural areas into empty placeless zones, occupied mostly by tourists or agribusiness. As a noncultivated entity, GMOs, like fast food, become shorthand for globalization. They represent the opposite of culture, cultivation, and civilization.

It is useful to point out, however, that the French are not unique in their fetishization of nature-as-agriculture. In the United States, for instance, actors reify the naturalness of Vermont-based agriculture (Heller 1999), such as artisanal Vermont cheese (Paxson 2006). The difference is that the United States also counterpoises this notion of nature as agriculture against a notion of nature as pristine wilderness. And furthermore, when U.S. citizens reject foods because of a lack of wholesomeness, they tend to denounce the food as unnatural and artificial, rather than as lacking in cultural *savoir faire*. U.S. citizens’ rejection of McDonald’s is largely based on discourses of technical quality (health and obesity), rather than on the “un-Americanness” of the food.

CONCLUSION

Over the past several decades, the ambiguous term *quality* has become a keyword used by states, corporations, and

other powerful institutions to normalize and depoliticize problems associated with industrial agriculture. As I have argued, just as institutions such as INRA appeal to ambiguous ideas of "quality" to promote their agricultural agendas, unions such as the CP make similar attempts.

The CP's anti-GMO campaign represents an instance in which the union successfully appealed to techné-driven food quality—despite the fact that union members do not necessarily utilize artisanal production scale or methods. Yet by asserting the cultural contrast between symbols such as Roquefort cheese and GMOs (the latter being an example of *la malbouffe*), the union is able to transform a technique of governance into a potent means to establish their own cultural authority regarding food, agriculture, and processes of globalization—as well as possibly constituting the basis for establishing a new food quality label, *Agriculture Paysanne*. It is the CP's ability to argue for GMO's lack of cultivation or *savoir faire* that finds resonance with the general French public. In an age of globalization in which technoscientific placelessness is often juxtaposed against *technes* of place-based production, Bové's comparison between a GMO and the McDonald's nowhere land of uniform hamburgers proves truly compelling.

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NOTES

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1. During 1997–2000, I conducted ethnographic research, spending weekends with CP farm families throughout the country, attending CP meetings and conferences at the union's headquarters outside of Paris, and participating in a variety of CP demonstrations. My research, however, did not end in 2000. As is the case with many public debates about science, the French GMO debate has yet to find *closure*—truly a problematic and tenacious term within science studies generally (Nelkin 1992). As the French GMO debate continues to unfold, I have continued to study it virtually, from afar, and during short visits to the country.

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Mass Producing Food Traditions for West Africans Abroad

ABSTRACT In this article, I examine West African foods sold mainly in specialty grocery stores, focusing on how technologies used in food production in West Africa are referenced in the brand names and packaging of processed African foods sold in the United States. Through their association with “timeless” West African food-processing techniques, such foods evoke memories of childhood and home. Yet the transformation of West African foods through new technologies of processing, packaging, and branding reflects different time and health concerns of West African immigrants living in the United States. Through their purchase of time-saving, mass-produced, and hygienically packaged foodstuffs, which are ideologically similar to but technologically very different from the production processes and cooking in Africa, West Africans in the United States use food to maintain social relations with their particular families, hometown associations, and religious groups, while also constituting national, regional, and global connections through the reinvention of food traditions. [Keywords: food, technology, West Africa, African Diaspora, United States]

New Year meant Isara. Smoked pork, the flavour of wood smoke, red dust of the dry season, dry thatch. New Year was palm wine, *ebiripo*, *ikokore* . . . a firmer, earth-aged kind of love and protection. Isara was filled with unsuspected treats, as when Father pulled down yet another ominous bundle from the rafters and it turned out to be smoked game, ageless in its preservation.¹

—Wole Soyinka, *Aké: The Years of Childhood*

For those growing up in southwestern Nigeria in the 1940s, like the writer Wole Soyinka, places and times such as New Year celebrated in his father’s home, the Ijebu Yoruba village of Isara, were often remembered in terms of food. For Nigerians who then went on to study in colleges and universities in the United States, these foods became delicacies available only on the occasional trip back to family homes in Nigeria. Thus, in Chicago in the 1970s, Nigerians, as well as other students from West Africa, had to make due with buying Betty Crocker Potato Buds® and Manischewitz® Potato Starch to make a semblance of the starchy mainstay known as *fufu* in Nigeria and Ghana.² During the 1980s, however, companies in West Africa began processing and packaging local foodstuffs associated with particular West African cuisines for sale in small grocery stores in the United States, such as those located in cities and university towns where large numbers of West African immigrants resided.³ Indeed,

it was the opening of these specialty grocery stores during the 1980s and early 1990s that contributed to the growth in the processed African food industry by providing marketing outlets for their products.

In this article, I focus on three aspects of West African foods sold in the United States. First, I examine the technologies used in food production in West Africa and the association of these production processes with foods sold in African grocery stores. I suggest that marketing claims that the latter are “authentically prepared” relate these food items with particular moral spaces, characterized by memories—of the affectionate intimacies “of trust, reliance, and support” (Beidelman 1985:166) as well as of deprivations—of childhood back “home” (Holtzman 2006:362). Second, I consider the transformation of West African foods through new technologies of preparation, packaging, and branding (Pavitt 2005), which mark them as modern comestibles, circumscribed by Food and Drug Administration (FDA) regulations and by different time constraints and health concerns of West Africans living in the United States. Finally, I discuss the ways that the purchase and preparation of these packaged West African dishes, which are ideologically similar to but technologically very different from the production processes associated with these West African cuisines from “home,” reinforce particular social identities through various forms

of commensal sociality and memories of cultural practices from West Africa (Lentz 1999; Osseo-Asare 2005). Through their use of time-saving, mass-produced, and hygienically packaged foodstuffs purchased at specialty West African grocery stores, West Africans in the United States both reproduce and reconstruct forms of social relations through the reinvention of food traditions from home.

WEST AFRICAN GROCERY STORES AND CONSUMERS IN THE UNITED STATES

West African Food and Church Worship

Presently, there are over 50 West African grocery stores in the United States.⁴ While conducting research for a project on African Diaspora connections of one Nigerian Independent Church known as the Cherubim and Seraphim (C&S) Church (founded in Lagos, Nigeria, in 1925; see Omoyajowo 1982; Peel 1968; Renne and Agbaje-Williams 2005), I attended services in the New York (Newark 2005, Bronx 2006), Chicago (2005, 2006), and Detroit (2005) metropolitan areas.⁵ Food was an important element of church worship, with an assortment of Nigerian dishes served after the service. Food is also prepared for special church functions, such as Thanksgiving services, in which different branches of Nigerian Independent churches in the United States and Canada come together to celebrate church anniversaries, marked by the preparation of large quantities of food that is served to church guests. I also spoke with church members about local sources of West Africa foodstuffs and visited African grocery stores that they patronized, collecting a range of packaged African food items and locally produced newspapers oriented toward African audiences. These sources were supplemented with published materials (travel journals, novels, journal articles, and books); information from grocery store websites specializing in West African food; and the actual packaging of processed foods sold in African grocery stores. While C&S church members represent a particular subset of West Africans living in the United States (most are Nigerian born, and many, but not all, have a Yoruba ethnic background), the practice of serving particular dishes associated with West African cuisine after church services and at other special events such as church anniversaries, marriages, and naming ceremonies is similar to that of other West African immigrants in the United States.

West African Grocery Stores, Products, and Consumers

In the Chicago area alone, such stores include the Old World Market and the African Grocery on the North Side and Chika International Market, which has two suburban locations. These stores sell both fresh produce and products associated with African cuisine—for example, plantains and large tuber yams, frozen goat meat and stockfish, processed cassava fufu flour, and canned palm kernel concentrate (Figure 1a)—and packaged snacks such as *chin chin* (small crunchy nuggets made from deep fried dough; see



FIGURE 1a. Label from Mr. Ho® canned palm nut concentrate, "100% Tropical," used to make palm nut soup, 2005. (Photograph by author)

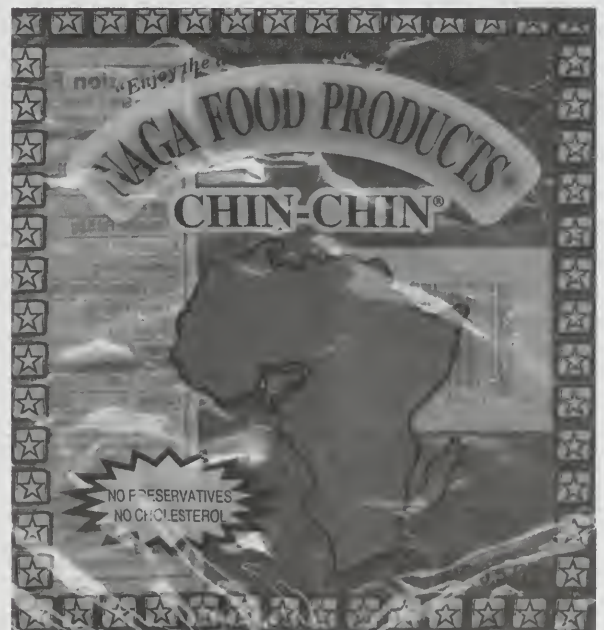


FIGURE 1b. An example of packaged snack foods: Naga Food Products® chin chin, small crunchy nuggets made from deep fried dough, 2005. (Photograph by author)

Figure 1b). The foods sold at these stores include processed foods, either made and packaged in West Africa (such as Dandawa bouillon cubes) or processed in West Africa—in cities such as Tema, Ghana; Lagos, Nigeria; and Abidjan, Côte d'Ivoire—and then packaged and sold by distributors in the United States.

Many of these specialty West African grocery stores, known by word of mouth and through newspaper advertisements, have names that identify them to potential shoppers. These include stores with names that refer to place, such as J and B African Market, in Seattle; the African Depot, in Florissant, Missouri; the West African Grocery, in New York City; and the Sankofa International Market, in Greensboro, North Carolina.⁶ Other store names evoke climate, such as the African Tropical Market in Kansas City, Missouri, and Tropical Foods in Roxbury, Massachusetts. Some store names refer to particular objects associated with Africa, such as the African Hut in Laguna Beach, California; the Calabash, in Newark, New Jersey; or the Safari Food Market, in Buffalo, New York. Others refer to specific African cities, languages, or ethnicities, such as the Kumasi African, American and Spanish Grocery in Worcester, Massachusetts; the Accra Market in West Hartford, Connecticut; or the Wazobia Grocery in Brooklyn, New York.⁷

West African immigrants, such as C&S Church members, are the primary consumers of the specialty foods available in these stores in the United States, purchasing them for everyday meals and festive celebrations. Foods such as palm oil are required ingredients for the preparation of particular cuisines associated with West African countries and ethnicities: for example, palm oil is essential in groundnut soup to eat with Ghanaian *banku* (fermented cornmeal), *egusi* (melon seed) soup to eat with Nigerian *iyen* (pounded yam), and in preparing versions of the Senegalese dish, Jollof rice (Osseo-Asare 2005). Some African grocery stores cater to particular ethnic groups or nationalities: for example, the Old World Market in Chicago carries a range of Ghanaian specialty foods and local Ghanaian newspapers. However, in these cases, specifically named Ghanaian ethnic (Ga, Asante, or LoDagaa) food cuisines (Goody 1982) associated with different geographical and climatic as well as socio-cultural and political contexts may be downplayed in favor of a more general Ghanaian identity. This process is paralleled in the ways that the differences in the techniques used to prepare these foods in West Africa are homogenized through their mass production as generic instant powders and frozen entrees sold in the United States.

TECHNOLOGIES OF FOOD PRODUCTION AND MEMORIES OF HOME

But they never attempted the usual cries of "hot yams!" "sweet sauce!" . . . of the girls, whose places they were attempting to fill.

—T. J. Bowen, *Adventures and Missionary Labours*

The particular processed forms by which West African food products are marketed in specialty grocery stores in the United States distinguish them from their counterparts sold

in large markets throughout West Africa. Many of the foods sold there continue to be sold in an unprocessed bulk state through large open-air markets (Ikpe 1994), although prepared foods and snacks are often marketed by young girls and women hawkers, who carry their wares on their heads and call out their products, much as the U.S. missionary, T. J. Bowen (1968:139), observed in the town of Abeokuta in 1851, referred to in the above epigraph. Although one may buy canned tomato puree and Maggi[®] bouillon cubes in the market, the mainstays of many soups and sauces are onions, tomatoes, leafy vegetables, peppers, fish, and meat, all displayed in neatly piled heaps that consist of specific but unpackaged quantities. The starchy mainstays (Bascom 1951a, 1951b) of West African cuisine (such as maize, beans, and rice) are sold out of 50-pound sacks, while the main types of yam (white, yellow, water, and bitter) are sold in stacks.⁸ It is the association of these different foodstuffs with distinctively prepared foods that have particular sensory qualities—textures, smells, and tastes (Sutton 2001:159)—that resonate with memories of home (Holtzman 2006:367): for example, consider the association between cow-peas (*Vigna unguiculata*, known more commonly as black-eyed peas, which are actually a type of bean) with *moin moin* (steamed bean cakes) and *akara* (bean fritters; Ajibola and Somade 1947:18; Ekariko 2005:14). Akara is described in one of the many newspapers available in West African grocery stores as "a wholesome product made from beans . . . [that] is a very popular, delicious and healthy street food delicacy from western Nigeria" (Ekariko 2005:14). Some Nigerian Americans may attempt the rigors of akara production, which takes "at least a day to prepare" because the beans must be soaked overnight and the skins entirely removed the next day. Others, however, wait until they return to Nigeria, where they can buy hot, fresh akara on the street and at motor parks.

As labor intensive and time consuming as the process of preparing akara bean fritters seems, preparations of foods such as this have their own distinctive technologies, associated with particular places, things, and people. Take, for example, the transformation of corn into the pinkish, slightly sour corn gruel known as *ogi*, which is a popular breakfast food, often served with akara throughout West Africa. It is made in a series of settings, connected with specific techniques and people, as described by Soyinka:

Every week, sometimes more often, Lawanle or Joseph would go off with a large basin of corn and return with it crushed, a layer of water over it. Then would begin a series of operations with calabashes, strainers, baskets and huge pots. It ended with those pots being placed in a dark corner of the kitchen, covered. As the day passed they would give off an ever ripening smell of fermentation. A week would pass and after several tests, tasting and sniffing, one pot would emerge from the darkness, and from it was scooped the smooth white paste which in turn was stirred in hot water to provide the morning *ogi*, a neutral mixture which everyone seemed to enjoy but I . . . Now I saw that the labour involved was even much greater than I knew, which only made matters worse for *ogi*, in my estimate of its pretensions. We were passing by a small shop in which

a machine whirled, propelling a belt with enough noise to match the music of the police band. A cluster of women waited by the door with their corn-filled basins and I realized that this was where Joseph or Lawanle came on those weekly excursions. There was a basin placed under a wide funnel which opened downwards. Suddenly the whitish mixture was flushed through the basin, of the same coarse mix that Lawanle would bring home. Then they would all commence the task of refining it and leaving it for some days to settle. Mother loved the omi'kan, the sour fermented liquid which formed at the top after its period of rest. [Soyinka 1981:38–39]

Soyinka concludes his description of the extended process of ogi production with an affectionate reference to his mother's love of the sour-tasting water that collected on the top of the fermented ogi. And even while Soyinka disliked both ogi and omi'kan water, he would have been given these things to eat by his mother. This suggests that certain foods are often fed to children not only to establish taste and create memories (both positive and negative) associated with particular types of food but also to reinforce the intimate connection between mother and child, begun by breast-feeding and continued through mothers' preparation of foods for their children.⁹

Nonetheless, the selfless preparation and giving of food by mothers may actually be a source of unpleasant childhood memories of home for those who left areas of Africa where they experienced food scarcity and hunger (Holtzman 2006:366). Similarly, memories of a parent's lack of provision of adequate food may be seen as a sign of a failed mother-child relationship, which was expressed by a Nigerian woman who had been raised by a foster mother when young: "She used to give me very small amounts of food with only a small fish head. I used to be given the same measure of food as that of her smallest child, her last-born, but she would give *her* the better part of the fish" (Renne 2003:100).

These distinctive memories of food and childhood, such as the time-consuming and the labor-intensive preparation of ogi described by Soyinka, differ considerably from the preparation of "instant ogi," purchased in packages sold at West African grocery stores in U.S. cities. While advertised as having the advantage of being "microwavable," packaged ogi—made with the ingredients, corn starch, and lactic or citric acid—does not even begin to approach the taste of ogi prepared by the longer process. Not surprisingly, many African foods sold in the United States are much reduced in variety because of their standardized packaging and the confines of West African grocery stores with their limited rows of shelves and refrigerated cases. Yet despite this considerable change in the processing, packaging, and marketing of these foods, the brand names and food packaging often invoke imagery that suggest "age-old" West African production techniques—such as the fermentation of corn, the stone grinding of peppers, the hand shelling of egusi melon seeds, women painstakingly preparing meals (Curtin 1992:125) cooked over an open fire (see Figure 2), and the mortar-and-pestle pounding of grains and cooked tubers. Thus, the trademark design for Golden Tropics prod-



FIGURE 2. The trademark design for Ghana Fresh[®] products shows a seated woman, stirring a pot over a wood fire next to a grass-thatched hut, 2005. (Photograph by author)

ucts includes a map of Africa along with a woman pounding food with a mortar and pestle along side a thatched hut (see Figure 3). The raw materials used to produce the canned or packaged item may also be illustrated, as in can labels of Ruker Cream of Palm Fruits, which depict the palm nut fruits themselves (from which palm oil is made) and a large cook pot overflowing with palm nut soup. Yet despite the authenticating imagery of traditional technologies and labor-intensive production process used in the packaging of foodstuffs sold in West African grocery stores, their preparation represents new concerns about time and health.



FIGURE 3. The logo for Gold Tropics[™] products depicts a woman using a mortar and pestle in front of grass-thatched hut, 2005. (Photograph by author)

CHANGING TIME-HONORED TRADITIONAL WEST AFRICAN FOOD

One example of this concern with saving time, while nonetheless maintaining tradition, may be seen in the packaging and preparation of Marguerite *attiéké*—"A traditional African dish [which is] Quick cooking." The packaging of Marguerite *attiéké* cassava couscous (see Figure 4) conveys this message of traditional production processes in two ways: first through the depiction of an attractive African woman carrying a tray of vegetables on her head and, second, through text that explicitly makes reference to authentic-traditional food production methods.

Try *Marguerite* *attiéké*, the delicious low fat couscous made from the cassava root. Produced using traditional method by women in Cote d'Ivoire on the coast of West Africa, *attiéké* is lighter in texture than regular couscous. It

makes an excellent and healthy alternative to rice and pasta, for those of us who care about what we eat. Easy to prepare, *attiéké* makes an ideal accompaniment to all your meat, fish and vegetable dishes and salads. *Marguerite* *Attiéké* is a natural product, containing no artificial colors, or flavors and can be stored uncooked for up to 2 years. *Marguerite* wishes you "Bon appétit!"

What is particularly interesting about this text is that it also appeals to another aspect of the production, packaging, and marketing of African foods in the United States: namely, its reference to up-to-date health consciousness associated with educated, "enlightened" West Africans, those who "have arrived." *Marguerite* *attiéké* is a "low fat couscous" that "makes an excellent and healthy alternative to rice and pasta, for those of us who care about what we eat." It is also "easy to prepare and a natural product, containing no artificial colors, or flavors." Similarly, references to low cholesterol are made on the packaging of Golden Tropics™ Oatmeal Fufu, a recently marketed product. This appeal to healthy food differs considerably from the concerns of an average West African shopper who is focused on getting a good price for unspoiled produce. There are also concerns with health, nutrition, and hygiene, which are suggested by the elaborate packaging of snack foods that provide "nutrition facts" and expiration dates. It is not that snack foods such as chin chin or plantain chips are not easily available in motor parks (outdoor bus-taxi stations) throughout West Africa, but that where they are sold "packaging" is in slips of newspaper and recycled school exam papers without any indication of nutritional value or content. This is what distinguishes these foods and their consumers in West Africa from those in the United States.

The packaging of *Marguerite* *attiéké* also makes reference to time, although conjunctions of tradition and time may be somewhat contradictory. While parboiled rice is popular in many West African countries, in part because of its quick and easy preparation, many people still prefer the time-consuming preparation of boiling and pounding yams to make *iyen* rather than using the quick, instant-powdered versions, such as *Ola Ola*, which are sold in the United States and Nigeria.¹⁰ Frozen African-style dishes "packaged for today's family on the run"—such as those advertised on the website for Sheba Foods, founded in 2004 and based in Scottdale, Georgia (Sheba Foods 2004; Shirreffs 2005), and Paani Foods, incorporated in 2004 and based in Chicago (Paani Foods 2005)—reflect this double concern with saving time and maintaining time-honored tradition.¹¹ According to the Paani Foods website:

We prepare all food products from time-honored family recipes, passed down through the generations, with the freshest ingredients imported from Africa and the best produce grown locally. . . .

We are a next-generation company promising to preserve the attributes of popular and beloved dishes, meat and poultry, and vegetables from the African tradition without the commitment of time in recreating this usually

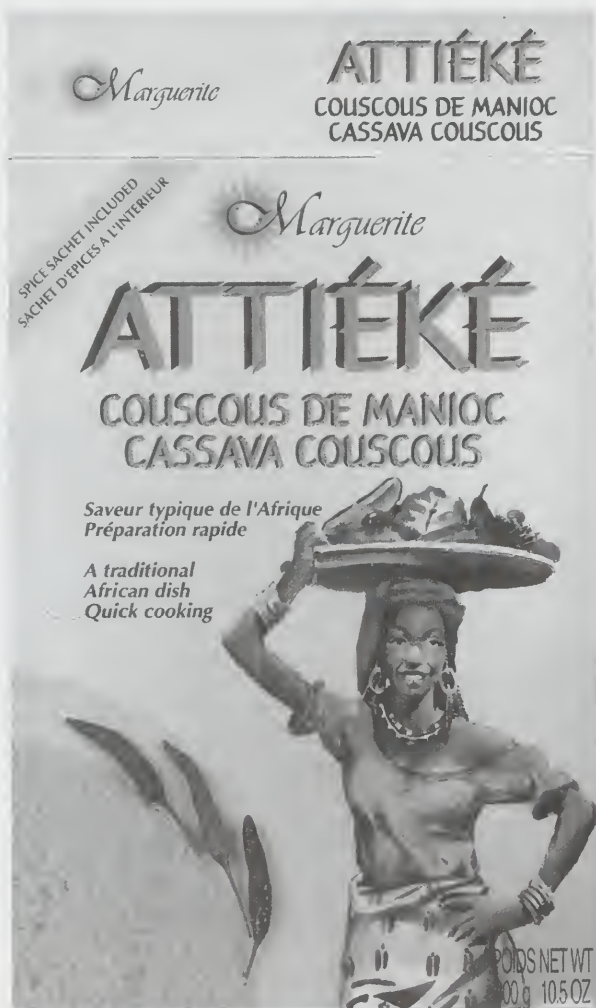


FIGURE 4. The packaging of quick-cooking *Marguerite* *attiéké* cassava couscous, "a traditional African dish," 2005. (Photograph by author)

labor intensive cuisine. A meal is only minutes away in our Heat to Serve and Ready to Cook packaging. [Paani Foods 2005]

By using the technology of frozen food, consumers can have it both ways. It should be noted, however, that even in the United States where time constraints impose limits on choice, some people still prefer hand-pounded fufu or iyan, as an article in the October 2004 issue of the *African Spectrum*, a Chicago newspaper for a largely Ghanaian American audience, suggests:

Woodbridge, ILL: For those who crave for the taste of a real pounded Fufu, do not look too far. Mr. Cecil Quist of Woodbridge has the answer.

Armed with a mortar and pestle, Quist, who possesses a license to operate a restaurant, is ready to cater to your craving. On Sundays, one can call him and place an order.

"Even though there is a modern way of making the Fufu with a spatula [and powdered mix], I believe there is nothing that can be compared to the real traditional way of making the dish," says Quist who also is a talented artist. [*African Spectrum* 2004:27]

Nonetheless, the time-consuming responsibilities of jobs, child care and schooling, and church obligations, some of which might have been taken up by extended family members in West African societies, not only limit the amount of time available for the preparation of traditional dishes but also for religious and social events as well. For example, one C&S church leader living in Brooklyn described the time constraints on church services in the United States while also noting the time and effort needed to prepare food for church anniversaries:

My church takes time, we know when we go we don't know when we are dismissing although they are trying to streamline things ... my elder in charge is a very busy man so he doesn't want to stay in church for 6 hours or so unless there is something special going on, so like now church is supposed to start at 9, we start at 9, even if it is two people who are there so you find by 12, latest 1, you find that church is over ...

You know my church we always cook most often we cook at the church like my branch here where I go to we have a hall with kitchen and everything. ... In two weeks I have a big anniversary coming up which I'm dreading kind of ... because like it or not, some people don't know how to cook for a large group. So I have to do more than I'm expected to do. [Interview with C&S Church woman church leader, Brooklyn, New York, October 29, 2005]

Under such circumstances, women involved in preparing food for large groups at church anniversaries and other ceremonial events might rely, to some extent, on processed ingredients. Despite being technologically very different in their production methods from West African cuisines from "home," these processed foods represent an ideal of taking the time to maintain traditional food practices, thus reinforcing particular social identities, which are, nonetheless, changing.

WEST AFRICAN FOOD AND CHANGING SOCIALITY

Through their preparation of specific West African cuisines (Nigerian, Yoruba, Igbo, Ghanaian, and Akan), West African immigrants maintain ethnic and national identities and reinforce particular social ties in the United States. Refreshments such as Jollof rice, fried plantains, pounded yam, and at times egusi soup, prepared and consumed in branches of U.S.-based Cherubim and Seraphim Churches put members at ease with the "comfort food" of home, Nigeria.¹² Church events are also a source of information about where to obtain particular West African foodstuffs. For example, one Nigerian American woman who went to a meeting at a fellow church member's house was served a dish specific to Niger Delta that she had wanted to prepare but had been unable to because she couldn't find a particular ingredient. She was told that this ingredient was sold at one of the grocery chains in New York City but even after going to four stores she could not find it. However, she was reassured by another church member who told her that she would bring it to their next church meeting (Interview, C&S woman church leader, Newark, New Jersey, October 30, 2005).

This example of the sharing of sources for distinctive ethnic cuisines prepared by C&S Church members, who were originally largely Yoruba-speaking men and women from southwestern Nigeria, underscores that fact that many C&S Churches in West Africa and the African Diaspora now include members from other Nigerian ethnic groups, including Igbo, Ijo, Itsekiri, and Bini men and women, with their own distinctive cuisines. While specific Igbo dishes may be served at smaller meetings, the food served after church services often represents a more collective Nigerian national identity (Cusack 2000). Thus, at the 2005 Thanksgiving service at House of Gideon C&S Church, in Newark, New Jersey, food for guests consisted of Jollof rice, fried plantains (*dodo*), fried meat (*eran*), and small meat pies: in other words, generic Nigerian, or even more generally West African, cuisine was served to churchgoers.

This generalized Nigerian cuisine is particularly appropriate fare at services of the U.S. branches of the C&S Church, which includes members from several different parts of Nigeria, whose distinctive ethnic identities are merged within the U.S. churches in which membership is pooled from a smaller number of Nigerian American C&S Church members. This situation differs considerably from attendance at the many branches of C&S Churches in Nigeria, which are often associated with individual founders from particular places. In such cases, distinctive food preferences prevail, exemplified by the relative stiffness or softness of pounded yam, accomplished by the amount of water added, and by its pliancy, which depends on the age of the yams used, the amount of water added, and the extent of pounding. The "traditional" artisanal technologies associated with mortar and pestle use allow for these distinctive food tastes associated with different Nigerian places (Revel 1982). Similarly, the laborious preparation of named dishes such as the Yoruba akara (in Igbo, *akara*; in Hausa,

kosai)—bean fritters made of skinned and ground black-eyed peas along with the particular concatenation of pepper, onions, and spices, fried in palm oil, which have their own particular tastes, textures, and shapes—relate these foods to particular ethnic identities: Yoruba, Hausa, or Igbo. The preparation of such food also links itself to particular places: for example, the town of Oshu, on the road between Ilesha and Ile-Ife, which specializes in akara sales to travelers; the corner opposite Pada Primary School in Zaria City, in northern Nigeria, where one woman cooks and sells *kosai* to passersby every morning; and the Onitsha Market, where akara bean fritters are sold with pap to traders in the early morning. Alternately, despite the different brand-names of mass-produced and -packaged yam flours such as Ola-Ola™, Mimi Worldwide Foods, and Iyan Ado advertised on the website for Cayce Foods (2006) and akara mixes available at African grocery stores, except for slight differences in how closely they approximate the actual mortar and pestle-pounded yams or akara fritters when prepared, the results of these packaged yam flours and akara mixes are very much the same.

Thus, in the United States, specificities of African ethnicity, language, and place are often downplayed in favor of a broader national, regional, or global identity when referring to food. The parents of the young Nigerian American writer Uzodinma Iweala reinforced his ethnic connections with particular Igbo villages and his knowledge of the Igbo language, but he refers to food, as well as himself, with a more generic Nigerian identity:

My parents have always stressed the Nigerian aspect of my person through our family's yearly trips to the villages in which my mother and father grew up, the speaking of the Nigerian Igbo language in our house, and the cooking of Nigerian food that tastes better than anything you've previously ingested. The mantra of my childhood was "remember where you come from." [Iweala 2006: PS, p. 4]

This process of a shift toward national and regional cuisines also has taken place in West Africa with the import of manufactured Western foodstuffs into Nigeria during the colonial period, such as tinned, condensed milk; sardines; Maggi cubes; and white bread (Goody 1982:176).¹³ This homogenization of food tastes was further reinforced during the Independence period, through media advertisements, television cooking shows, and contests, as well as newspaper columns about food and cookbooks (Mars and Tooley 1943), all of which have contributed to a sense of a Nigerian national cuisine (Cusack 2000; Ikpe 1994). Yet specific local food preferences continue, such as for *tuwo shinkafa*, a rice porridge that is favored in northern Nigeria when prepared in the traditional way, boiled and pounded (Ikpe 1994:216).

In the United States, the packaging of West African products reminds consumers of these "timeless" but time-consuming West African production techniques—for example, mortar-and-pestle pounding, stone grinding, and hand shelling—that are used in their processing back home,

yet product branding with names such as "All African Nations Foods" or "Golden Tropics™" reinforce a more global-transnational African and American identity. This broader identity is further reinforced on some packaging of West African foods sold in U.S. grocery stores through the practice of listing the names of the product in several different languages. For example, "Crunch Plantain Strips" are also described on the packaging as *ipekere* and *platanos* (Igbo and Spanish, respectively), while the packaging of "instant Ogi," the processed version of the sour cornstarch breakfast food of Soyinka's childhood, is written as *akamu*, *koko*, and *pap* (Igbo, Yoruba, and English).¹⁴

Furthermore, some products also make reference to the entire African continent and subsequently all Africans through their logos, trademarks, and package illustrations (see Figure 3). Thus, the packaging for Golden Tropics Plantain Fufu Flour depicts the national flags of Liberia, Guinea, Togo, Cote d'Ivoire, Sierra Leone, Cameroon, Senegal, Benin, and Ghana (see Figure 5). Yet this imagery of West African solidarity is belied by the prominence of place given to the Ghanaian flag—Golden Tropics products are manufactured in Tema, Ghana, and packaged in Newark, New Jersey—and the absence of the Nigerian flag. Thus, there are both collective and conflicting identities (family, ethnic, national, regional, and transnational) represented here, as well as a range of social frames (modern and up-to-date, yet respectful of African traditions), that are reinforced by particular foods associated with West Africa that have been transformed by the new technologies used in their preparation.

DISCUSSION

Aro meta eeyi (Three hearthstones don't shake [the cook pot]).

—Bunu Yoruba saying

The saying *aro meta eeyi*, "three hearthstones don't shake," suggests the image of the blackened cook pot, seated on three hearthstones (*aro meta*), that will not shake, fall down, or break (Renne 1995:74). The phrase is used in situations when one wants to evoke a sense of firmness, strength, and groundedness. It is appropriate, then, that the image of the cook pot serves as a logo on West African food packaging, referring to this sense of stability and connections to one's African roots and home. The cook pot also represents a certain technique of food preparation associated with indulgent mothers who cook delectable soups and stews made with palm oil, egusi seeds, bitter leaf, and peppers over hot fires, imagery that is fondly associated with memories of certain times and places. The memories of place associated with the tastes, aromas, and textures of particular foods, prepared by the labor-intensive techniques associated with cooking with a large pot over an open, smoky fire, using local ingredients, perhaps explain why some Nigerians, on returning home from the United States, prefer to eat street food and locally prepared



FIGURE 5. Front packaging of Golden Tropics™ plantain fufu flour, with several African national flags and the Ghanaian flag prominently displayed, 2005. (Photograph by author)

cuisine. For example, when the proprietress of the Wazobia West African grocery store in Brooklyn returns to Lagos, she noted that:

I don't eat at Tantalizers [a fast-food chain in Nigeria], I go to the *buka* [small restaurants run by women who prepare local cuisine] and order *amala* (a porridge made from yam flour, usually served with *obe ila*, an okra soup), then I will just point to different pots [of meat and fish] and say, "I'll have that and that and that." [Interview, Brooklyn, August 26, 2006]

The anticipation of eating these much-loved foods produced by hand, using local materials and cooking techniques, is one of the pleasures of returning home, be it to Lagos, or Accra, or Enugu. While the packaging of Paani frozen *moyin moyin* (steamed bean cakes) makes reference to the ideal of leaf-wrapping, thus seeking to draw on these associations of home, food, and traditional cooking techniques, the resulting product—the frozen unwrapped

version—cannot be compared with the original. For there are certain expectations of what good *moyin moyin* should be: firm but smooth and slightly peppery, sometimes enhanced with bits of smoked fish and crawfish, with small ridges formed on its surface by its leaf wrapping. While the preparation of *moyin moyin* is neither uniform nor unchanging, it does have a long history of production and consumption in southwestern Nigeria.

Similarly, when one of the elders at a C&S church service in the Bronx told the congregation of his recent trip to Nigeria, he described his delight in eating *eko*, a sort of firmer version of *ogi*, that had been wrapped in banana leaves rather than in pieces of plastic. Indeed, this appreciation of well-prepared *eko*, wrapped in banana leaves and served with a pepper sauce, has been documented by the African American traveler, Robert Campbell, who traveled in Nigeria in the 19th century:

The food of the Egbas, as well as of all the tribes between Lagos and Ilorin, is very simple, consisting of a preparation called *eko*: corn is macerated in water until fermentation ensues. It is then crushed between stones, and the chaff separated by washing. The milky liquor is then boiled in large pots until it assumes a consistency somewhat stiffer than cream, which as it cools becomes as firm as jelly. The taste is rather unpleasant at first, but one seldom fails to like it after persisting in its use. A portion of it nearly as large as a penny-roll, wrapped in leaves, is sold for five cowries, or about a mill. An adult native consumes from four to eight at a meal, taking with it as a relish a few spoonful of *obé*, or "palaver-sauce," as the Sierra Leone folks call it. Palaver-sauce is made by cooking together palm-oil, pepper, ocros [okra], locust-seed, ogiri [cooked egusi melon seed] and several succulent herbs . . . Ground beans and pepper, fried in oil, called *acras* [akara]; cooked yams, beaten with water in a wooden mortar, *fufu*; with certain other preparation of corn, rice, etc., also form part of the diet. [Campbell 1861:44–45]

That a C&S church elder in the Bronx recounts his pleasure in eating leaf-wrapped *eko* 150 years later attests to the long-standing preferences for certain combinations of starchy porridges served with savory soups among West African men and women (Lentz 1999:15).

CONCLUSION

Despite these older food preferences, many West Africans living in the United States also consider themselves to be people "on the move," as those who have "made it." They have changed their food preparation practices—and, in some cases, their food preferences—for reasons of time and health.¹⁵ The technologies of mass production of West African foods—canned, powdered, and frozen—are particularly appropriate for these individuals, who idealize the labor-intensive techniques of African food preparation yet pride themselves in their modern U.S. lifestyles, which would not permit them to prepare foods in such a way in actual practice. The development during the 1980s and 1990s in the United States of a certain configuration of

global assemblages—manufactured West African foods, African brand-named products, specialty African grocery stores, and advertisements in U.S.-produced African newspapers—has allowed West African men and women living abroad to maintain their memories of food and African childhood as well as global connections with their families, hometowns, religious and ethnic groups, and national associations. Anthropologist Lynne Phillips refers to this “process of culture-making [as] a central component of globalization” (2006:46). One particular aspect of this “process of culture-making” may be seen in the time-saving techniques and homogeneity of processed West African food preparation, which allows West African migrants and their U.S.-born descendants to stress both their transnational global and particular family and ethnic identities to a greater or lesser extent.

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NOTES

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1. *Ebiripo* is a type of yam dish. *Ikokekore* is made by boiling peeled and grated yams with smoked fish and ground shrimps, palm oil, pepper, salt, and onions (Bascom 1951b:135, citing Mars and Tooley 1943).

2. I first learned of this way of making *fufu* from the wife of a Ghanaian professor at a small college in Florida in the mid-1970s.

3. I focus on West African cuisine, primarily because many of the grocery stores and food manufacturers cater to Nigerian and Ghanaian immigrants. There are a few exceptions, however; Paani, the purveyor of African frozen meals, has added an East African dish, *Wali wa Nazi*, to its choices, most of which are Nigerian fare.

4. There are two websites that list African grocery stores in the United States and Canada: African Markets website (<http://www.africanchop.com/chopso.htm>) and the African Grocery Stores-U.S. website (<http://afrodrive.com/AfricanStores/default.asp?WCcountryID=2>).

5. An earlier portion of this study of the Cherubim and Seraphim Church was conducted in Nigeria in 2002 and 2003, focusing on religious textiles in southwestern Nigeria (Renne and Agbaje-Williams 2005). My familiarity with Nigerian cuisine comes from conducting research in the Niger Delta (1985), southwestern Nigeria (1987–88, 1990, 1991–92, 1993, 2002, 2003, 2004), and northern Nigeria (1994–95, 1996, 1997, 1998, 1999, 2000, 2001, 2005, 2006).

6. The Akan word *sankofa* means, literally, “return and get it” but is also translated as “we must go back and reclaim our past so we can move forward.” It is represented on Asante funeral cloths by the *adinkra* symbol. It is also the title of a film (1993) directed by Haile Gerima, the storyline of which revolves around the idea of memory, the past, and return.

7. Wazobia is the name of a proposed national language that combines elements of the Yoruba, Hausa, and Igbo, the three main language and ethnic groups in Nigeria. The term *Wazobia* consists of

words meaning “come” in Yoruba (*wa*), Hausa (*zo*), and Igbo (*bia*). Its use signals its specialization in Nigerian foodstuffs and, more recently, Nigerian films.

8. The many named varieties of yams are indicative of their pride of place in Yoruba cuisine. There are over 37 named varieties of white yam, *Discorea rotundata*, alone (see Bascom 1951a:44; Osseo-Asare 2005:18–20). Yams are celebrated in festivals and in folktales. In June and early July, people in towns and villages in southwestern Nigeria observe the New Yam Festival, after which people can freely eat the new crop of yams. Yams are also described as having human qualities, traveling to streams during droughts to drink water (Renne 1995:227n20). L. C. Okere (1983:93–105) discusses the importance of yams in Igbo society and cuisine, referring to the yam as “the King of Crops” (Okere 1983:212).

9. Deborah Lupton (1994) notes that in Australia certain foods evoke vivid childhood memories, which may sometimes be unpleasant (on food and childhood in Australia, see also Renne 1993).

10. There are several companies producing instant, pounded yam flour. One of the earliest brand-names was Pound-o, which was marketed in the United States and Nigeria in the late 1980s. More recent brand names include Ola-Ola, Iyan Adu, and Mimi Worldwide Foods.

11. Kunmi Oluleye, the founder of Sheba Foods, was born in Lagos, Nigeria. She sells many items familiar to Nigerian immigrants, such as frozen okra soup and frozen Jollof rice, as well as fresh goat meat. Part of her marketing strategy has been to provide foods through a store in Scottdale, Georgia, through the Sheba Foods website (2004), and through large grocery chains including Wal-Mart and Publix (Shirreffs 2005).

12. “Refreshments,” the final item on the C&S Church Women’s Anniversary Service program held at the Bronx C&S Eternal Sacred Order Church, on August 27, 2006, included Jollof rice with fried chicken, plantains, and green peppers; egusi soup and pounded yam (Ola Ola brand); and soft drinks and bottled water.

13. While British colonial officials were responsible for introducing Nigerians and Ghanaians to white bread, its production was soon taken up by small local bakeries (Goody 1982; Ikpe 1994) and is very popular as a fast-food in both countries. The type of bread favored is soft and white, often produced in large rectangular loaves. I have seen Nigerians carrying this bread with them when traveling overseas; it is also available at Wazobia Grocery Store in Brooklyn.

14. *Koko* is described as a type of “*eko* in which the *ogi* is lumpy” (Abraham 1962:379). Using an instant mix would facilitate making lumpy *eko*.

15. As one Ghanaian Nigerian American man described this change in his diet, “My favorite food is jollof rice. But now, due to health purposes, I eat more vegetables, less oil ‘efo.’ I don’t eat too much meat, mostly fish and organic chicken, like home chicken” (African Abroad-USA 2006:37).

This man exemplifies the sorts of multiple national identities that are not uncommon in West Africa. He was born in Ghana; later traveled to Kaduna, Nigeria, where he had connections through his Hausa background; and then later went back to Ghana. Since coming to the United States in 1980, he has established the One Stop African Market and an African restaurant in the Bronx.

Oil “*efo*” is a boiled leafy vegetable dish prepared with red oil, onions, and dried fish.

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"Our Beer": Ethnographic Brands in Postsocialist Georgia

ABSTRACT Although Georgia is known for its wines, industrial production of beer far outstrips industrial wine production for local markets: wine consumption occurs in ritual contexts in which new wine, typically purchased from peasant producers, is preferred; bottled, aged wines are primarily for exports. Beer, therefore, is a key area in which industrial production for indigenous consumers has been elaborated. Such goods are packaged and presented as being both ecologically "pure" and following "traditional" methods, often referencing "ethnographic" materials about traditional life in brand images, even as they proclaim their reliance on Western technologies. [Keywords: semiotics, brand, production, consumption, postsocialism]

GEORGIA IS THE LAND OF WINE. In fact, many Georgians believe, and it is not an outlandish claim, that viniculture may have originated on Georgian soil. But this article is not about Georgian wines but Georgian beers. Our question is this: If Georgia is known most of all for its wines, why, under postsocialism, are Georgian beer brand names more salient in contemporary public discourse and public consumption? Why, in general, has the marketing of Georgian beers, and not wines, become the central emblem of resurgent Georgian national industries after socialism? Our second question builds on the first: How have Georgian marketers linked beer to ethnographic images of the Georgian nation inherited from presocialist and socialist ethnography, using ethnographic images of Georgian tradition to build national brands? Here Georgian beer marketers have capitalized on the fact that while most Georgians drink only wine in traditional ritual contexts, beer is the traditional ritual drink in certain remote mountain communities that are also the exemplary objects of Georgian ethnography, allowing a drink consumed in informal contexts of sociability in contemporary urban contexts to be clothed in the mantle of authentic ethnographic traditionalism exemplified by traditional technology and ritual contexts of consumption associated with mountainous regions of Georgia. Under socialism, the Georgian economy was noted neither for its branded products nor for its beer. In fact, socialist-period beer was so bad that toasts given with such beer generally meant, and indeed still mean, the opposite of what was said. Under postsocialist capitalism, by contrast, beer brands have become the most prominent

sort of indigenous product and the most well-known indigenous brands.

But Georgian brand makers produce brands that ground their products in the ethnographic halo of authentic Georgian tradition while at the same time indexing European technology. We will argue that this dual lineage in which Georgian products are presented as being part of both Georgian tradition and European modernity indexes the ambivalent way that Georgia is itself imagined as an exile or asymptote of European modernity. It also indexes the ambivalent status of branded goods in general. Under socialism, *brand* was almost by definition an attribute of goods from the "Imaginary West" (Yurchak 2006). Hence, the category of "indigenous brand" would appear to be a contradiction in terms, unless such goods can be shown to have a dual lineage that is both Georgian and Western.

THE SOCIALIST CONTEXT OF POSTSOCIALIST BRANDS

Part of understanding this story entails understanding how socialism is imagined in relationship to capitalism, especially regarding the category of brand. The Soviet Union may no longer exist in reality, but it continues to live a rich, second life as a mythological, demonic Other in the world of Western neoliberal discourse. The productivist ideology of the USSR, it is said, privileged production for production's sake—hence ignoring the consumer. And that, the argument continues, was why it died: it subscribed to an outdated ontology that privileged needs over desires, and on this basis presumed to produce for, and dictate, the needs

of its people, rather than cater to the desires of its consumers (Verdery 1996:20–29). And it failed even to do this: its products were shoddy, nonuse values parading as use values, and often there were not enough of them (see Fehervary 2005:ch. 6 on the "shortcomings of 'shortage'"). Even when there was enough, there was not enough choice between them: there were no brands. The Soviet economy failed to produce, and part of this failure was that it failed to produce a symbolic, immaterial component (brand) to complement the material product. An entirely typical example of this mythology is the following extract from a vociferous "defense of brands," which posits the West as a land of brand abundance in contrast to the grey and joyless wasteland of brandlessness of the erstwhile workers' paradise. Here the essentialism favoring need over desire is complemented by one favoring the material over the immaterial, the product over the brand.

THE CASE FOR BRANDS

Although in the West we increasingly bemoan consumerism, brands are anything but superficial. They are an important indicator of economic health. At its most basic, a brand is a way for a product or service to distinguish itself from another. Like a string of would-be suitors, brands compete for our attention. To win it, they must offer a superior product, a lower price or some intangible attraction such as exclusivity, from which consumers stand to gain. The more brands there are and the more ferociously they compete for our hearts and wallets, the more benefits we will garner. Critics of brands like to claim that big brands stifle competition and reduce choice. To see how wrong that argument is we only have to look at the former Soviet Union. In communist Russia, brands did not need to exist because there was no competition. Everything was supplied by state-owned companies at set prices. Since there was no incentive for suppliers to improve quality or innovate, the result was economic stagnation and falling living standards. [Ahmad 2005:14]

In this popular definition, the term *brands* has two components: first, they are distinctive and unique associations of product to producer and, second, they are like "a string of would-be suitors," addressing the desires of the customer. According to this story, the Soviet economy did not have brand in either sense. And we know the Socialist economy died. All we need to make an argument is to add the word *therefore*.¹

But the (Soviet) socialist legacy on this, like many other issues, is far more complex than this simple-minded story would have it. The postsocialist phenomenon of brand, which is the topic of this article, reflects this complex heritage. Socialist products in certain sectors were indeed branded. Items defined as basic, everyday needs (bread, cheese, butter, milk, etc.) may well have been brandless use values, but "common luxuries" and novelties also proliferated and were distinguished by brand names: for example, there were cigarettes like Kazbek, Kosmos, and Stiuardessa, and there were brands of chocolates, cognac, wine, and, most of all, vodka, and so on (Gronow 2003). In this way

the distribution of brand under socialism seemed to illustrate a basic ontological divide in socialist culture between orders of products: staples and luxuries, bread and roses, universal human needs (brandless) and specific human desires (branded). Importantly, the same sphere of common luxuries (Soviet or Western) like chocolates, perfumes, and alcohol that were branded in the socialist economy also played an important role as prestigious gift valuables underlying the second economy of informal *blat* (informal exchanges; for more on *blat* gifts, see Ledeneva 1998:ch. 5).

Such indigenous branded goods also formed material core of the Soviet concept of "culturedness" (*kul'turnost*). *Culturedness* stands for state-directed changes in socialist consumption, sometimes mistakenly identified in neoliberal consumerist discourse as a sort of socialist embourgeoisement, evidence that socialism is simply covertly a form of capitalism, whose motivational categories (such as consumers and desires) are taken to be natural and universal. *Culturedness* (and branded goods were part of the campaign for culturedness) was a state-directed campaign to reform everyday life in general, including matters of personal hygiene, public comportment, and home décor. In general, culturedness could be displayed in the consumption of everyday objects like curtains and lampshades as well as high culture like the literature of Tolstoy and Pushkin (*kul'tura*; Dunham 1976; Fitzpatrick 1992; Kelly and Volkov 1998). As Catriona Kelly and Vadim Volkov describe it,

The brilliance of the *kul'turnost* ideology lay partly in the fact that it was a fusion of two value systems previously thought incompatible, those of the bourgeoisie and the intelligentsia. . . . *Kul'turnost* also achieved the hitherto impossible feat of equating consumer goods and cultural artifacts, both now respectable appurtenances of the new Soviet citizen. . . . The ideology of *kul'turnost* deconstructed the binary opposition, creating a world in which a nicely bound collection of Tolstoy's works could, with perfect dignity, stand next door to a lustreware teaset, looking down on a tea-table laid with lace doilies and a tablelamp. [Kelly and Volkov 1998:304–305]

Just as socialist ideologies of *kul'turnost* ("directed desires" in Kelly and Volkov's felicitous phrase) are uncannily similar to embourgeoisement of consumption, so too socialist brands are uncannily similar to capitalist brands, yet at the same time irreducibly different. There is no mystery about the source of these similarities: such common luxuries, the objects of Soviet "cultured trade," were socialist competitors with, and imitations of, both Western goods (Hessler 2001:458–459) and luxury goods that had been consumed by the former Russian nobility (Gronow 2003:33). The differences also emerge from the same dynamic: the *kul'turnost* model for consumption (and "socialist brands") illustrates how Western bourgeois consumption as well as presocialist aristocratic consumption serves as an external model for emulation (not imitation) to create a specifically socialist modernity to which the idea of cultured trade was connected (Hessler 2001:459). As a result, here the categories of socialist modernity are uncannily familiar

and, yet, strange, in a manner that parallels other such categories, such as public versus private, which as Susan Gal argues are also "so different . . . yet so eerily familiar" (Gal 2002:80) because they are addressed to overcoming binary oppositions within the social imaginary inherited from Tsarism (Manning 2004a), creating a new Soviet citizen: *homo Sovieticus*.

At the same time, actual Western brands (or imitations of them) also formed a category internal to socialist consumption: alongside these socialist branded goods (images of kul'turnost) circulated "firm" (Georgian: *sapirimo*; Russian: *firmennye*) goods, these being goods bearing labels and brands from Western or East European socialist countries. If socialist brands represented state-directed emulation of Western capitalist consumption, firm goods represented (incarnated) the almost mythical "imaginary West" itself (Fehervary 2005:ch. 6; Yurchak 2006:ch. 5). For our purposes what is relevant here is that, on the one hand, socialist brands existed and defined a sphere of state-directed desires (kul'turnost) in consumption, but, on the other hand, the category of brand itself seemed to betoken capitalist "firm" goods by a kind of stereotypic association. The result was that brandlessness versus brand, firm goods versus indigenous brands, and even the opposition between state and black-market goods all produced complex, stable hierarchies of value internal to the socialist economy (Fehervary 2005:ch. 6; Yurchak 2006:ch. 5): in effect, a hierarchy of qualitative orders of goods with entailments on their circulation, forming a sort of socialist version of "spheres of exchange" (Bohannan 1955; Lemon 1998:39–44).

The mass arrival of goods with Western brands with the so-called transition from socialism to postsocialism in the early nineties changed this stable hierarchy, producing a "crisis of values" (Humphrey 2002:43; Lemon 1998). It became possible to compare socialist brands and Western ones concretely, at least those affordable luxuries that remained within the means of increasingly impoverished consumers. At the same time, the penetration of everyday consumption by certain salient Western brands (Snickers in Russia [Humphrey 2002:48] and Magna cigarettes in Georgia) allowed these brands to serve as "metasymbols" (Miller 1998) of the more general predicament of the transition ("the snickerization of Russia" [Gorham 2000:629], "the Epoch of Magna" in Georgia [Manning 2006a]).

Therefore, the legacy of socialism with respect to brand is a mixed one. Socialist modernity here, as elsewhere, is an uncanny other of Western modernity, involving oppositions both at the level of imagined stereotype and actual practice. Therefore, in broad outlines socialism remains relevant to understand the practices of brand producers in the postsocialist world (which is the focus of this article). On the one hand, brand serves as a stereotyped diacritic to distinguish Western goods (all of which were branded) from socialist ones (only some of which were); on the other hand, there were socialist brands but they indexed a rather different sort of real and imagined relationship between the producer (the state), the product, and the consumer than under capitalism. Indeed, in a market context that was by

definition noncompetitive, the "goodwill" associated with brands in capitalist contexts can serve neither as a competitive advantage nor as a form of intangible asset, a monetary valuation of the brand name as property, two of the most important elements of brands in Western capitalism. Therefore, whatever it is that socialist brands accomplish in terms of identification of the producer cannot be explained using the same terms. Similarly, socialist brands were aimed at inculcating and directing desires as part of the creation of a "cultured" *homo Sovieticus* (Fitzpatrick 1992; Kelly and Volkov 1998); they were not aimed at recognizing some naturalized or autonomously formed consumer desire (as are "lovelmarks"; see Foster 2005).

The point is that brands are not semiotically transparent symbolic accoutrements to material goods, spontaneously springing up by an additional corollary to humankind's alleged natural propensity to truck and barter (and consume), nor are they completely transportable, carrying the same transparent meanings wherever they go, little vanguards of capitalism that could flow into the brandless vacuum of the socialist or postsocialist space unchanged (Yurchak 2006). Brands, like the commodities they are attached to, are material semiotic forms whose circulation defines a broader social imaginary (Lee and Li Puma 2002), whether it is the market, the nation, or the empire that in part gives them meaning; in turn brands serve as metonymic symbols of these entities, as Coca-Cola serves as a handy "metasymbol" of Western capitalism, imperialism, globalization, homogenization, and so forth (Miller 1998).

The transition from socialism to capitalism, therefore, was not simply a seamless transition from brandless to branded products. There was indeed an explosion of brandedness in the postsocialist economy, yet at the same time, not only did much socialist production disappear, along with it disappeared many of the socialist brands associated with them. New "firm goods" flowed in in large quantities: brand names that had served as rare icons of the "imaginary West" (Yurchak 2006) before were now encountered as everyday, usable, if not affordable, products (Humphrey 2002:ch. 3; Manning 2006a). Disappearing socialist brands in turn became objects of discourses of nostalgia: in fact, many were revived as capitalist brands. At the same time, there was also an explosion of brandlessness, as the promissory quality associated with brands—a component of what is generally called "goodwill," the idea that a brand on a bottle indexes a specific producer and a specific style of product—was undermined on several fronts. The absence of state regulation under "wild capitalism" allowed the proliferation (real or imagined) of all manner of brandless wildlife: products with no brands; the explosion of brandless goods made in microfactories (e.g., soft drinks mixed in bathtubs with generic labels); and the outright falsification of brand names, local and international (Pelkmans 2006). Lastly there were the misgivings, suspicion, and paranoia of a population whose socialist expectations had not been domesticated to adopt the category of brand, and who in general doubted the content of any message, especially messages on bottles.

How, then, does one domesticate a population that is not only suspicious about brands but also has not yet fully accepted any premises about what *brand* means in general? In other words, how does one not only create goodwill for one's own brand but also forge a kind of "generalized goodwill" for national brands in general (as opposed to Western "firm goods")? What we wish to show here is how Georgian brand makers, particularly in the thriving Georgian beer market, partly counter these doubts and anxieties by reassuringly grounding their brands in a latently socialist productivist imaginary of traditional production. In this article, we show how figures of tradition are utilized to ground new Georgian industrial products, especially beer products, in the social imaginary of the nation. These include figures of traditional production, which suture contemporary Georgian industrial production of beer to images of traditional production methods hallowed by time, and figures of traditional consumption, which link contemporary products to specifically Georgian scenes of traditional consumption.

Despite superficial similarities, these discourses of traditionalization of production and consumption remain very different from the way the opposition between tradition and modernity is elided into an opposition between artisanal techne and industrial technoscience, and the discourses of relative distinction related to these, in Western countries (see Meneley 2004, this issue). In Georgia, where much agricultural production is indeed still (or is once again) done by peasants, there is no discourse that privileges artisanal production over industrial production. Rather, contemporary industrial methods of production are seen as providing highly desirable links between the product and European modernity, while traditional images of production link the product back to Georgian national soil and tradition. In effect, postsocialist Georgian brands attempt to represent their products as having the desirable properties of Western "firm" goods as well as being autonomously produced by and for an autarchic national economy (like socialist brands). Instead of producing a stylistic distinction within production that opposes consumer products as being "artisanal" versus "industrial" and linking these to discourses of distinction (aesthetic, moral, class, or what have you), as in Europe and North America, Georgian manufacturers seem to prefer a dual lineage, which seeks to link tradition to modernity in each and every product. Because it is not craft production per se that is important, any aspect of the commodity's trajectory, from production to consumption, can be emphasized as being "traditional."

The imaginary that allows such a linkage is a nationalist imaginary of the nation as a longitudinal unity since time immemorial but one that is also moving forward in time into (European) modernity. Within this imaginary, the divided temporal moments of tradition (the past in the present) and modernity (the future in the present) are linked together. At the same time, the divided spatial moments of production and consumption are also linked together within the same imaginary of the nation. In this linking, there is a latent socialist notion that the nation should be autarchic (national production for national consumption)

and an imaginary in which (socialist or capitalist) modernity is understood as a primarily technical set of innovations (see also Chatterjee 1992 for a parallel articulation), which allows the Georgian traditional cultural life of the nation to continue in essentially unchanging form: socialist, capitalist, or European in (technical) form, national (traditional) in content.

BRAND SEMIOTICS

Brands are potentially Janus faced, now indexing a figure of the producer, now a figure of the consumer. They are Janus faced in another way as well, in that they are somewhere between the material world of commodities and an immaterial world of signs, representing an incursion of the material category of "wealth" into the "immaterial" world of signs ("immaterial wealth" such as "goodwill"; Manning 2006b). In both of these ways, they can be compared to linguistic signs (Moore 2003): the discrete moments of production, distribution, and consumption can be modeled in terms of the participants of a speech event—speaker, utterance, and addressee—and like language, the phenomenon of brand oscillates between the immaterial type (Saussurean *langue*) and individual material token (Saussurean *parole*). Robert Moore characterizes brand as

centered semiotically upon a composite object, or, more accurately, an unstable conjunction of a product (prototypically at least a material, tangible object) and a mark, logo or brand name. . . . "Brandedness" as a semiotic process immanent in the contemporary commodity experience unfolds in relationships between two parties—producers and consumers. These relationships can be modeled as events of communication in several respects. "Brand" summons people to participate in the market, it interpellates people to act as consumers, in particular ways. In the same moment, brand is now the dominant means by which the producers—corporate entities, usually—extend themselves (in the ordinary as well as philosophic sense) into the world inhabited by their erstwhile (or sought after) consumers, indeed, into the world of contingency (success or failure) itself. [Moore 2003:335]

If the pragmatic function of the utterance that foregrounds the speaker's involvement in it is usually called "expressive," we might call the function of a mark on a product that foregrounds the involvement of the producer a "productivist" function of brand (on productivism as a social ontology more generally, see Manning 2004b, 2006b). The phenomenon of brand in the West is most often rationalized, of course, as a unique identifier of the source of the product, a market equivalent of a signature or a fingerprint. It links products to the distant producer, serving at minimum as a simple conventional diacritic that differentiates the products of different producers, and perhaps even indicates the real presence of the actual producer. As Rosemary Coombe (1996) points out, these two very different ways of linking product to source are often conflated in discourses of branding²:

A mark must attract the consumer to a particular source that, in mass markets, is often unknown and distant. A

logo registers fidelity in at least two senses. It operates as a signature of authenticity, indicating that the good that bears it is true to its origins—that is, that the good is a true or accurate copy. It is exactly the same as another good bearing the same mark, and different from other goods carrying other marks. . . . The mark also. . . registers a real contact, a making, a moment of imprinting by one for whom it acts as a kind of fingerprint—branding. [Coombe 1996:205]

In indexing the producer, however, both of these moments do not figure equally in all types of products in Western discourses of branding; rather, they seem to be constitutive of the stylistic opposition of different kinds of value within the world of goods between “industrial” and “craft” production (Meneley 2004, this issue). The conventional sign of the producer—the logo, mark, or brand name—is like a conventional linguistic sign: a type-level entity that is reproduced identically through individual copies or instances, what we call “tokens,” in exactly the same way that an industrial good is definable as a type of product, an individual token of which is indistinguishable from any other. This sort of interchangeability operates both at the level of brand and of branded product, and it results in a kind of goodwill: that one product bearing the same mark will be as good as or identical to any other bearing the same mark. Such goodwill and absolute interchangeability is the hallmark of industrial production. Let us call this “type-level” branding. The second sense of mark, the “real contact,” is a unique imprint of an individual craftsman. It is more typically associated with the individuated products of craftsmanship, of nonindustrial production, in which the individual variations and noninterchangeability of products all index the (highly prized) variability of craft production, which seems to offer direct contact with the real producer, who is made present in flaws and minute variations of the product. Here, individual products are connected to their real, individual producers (or at least so represented). We can call this “token-level” branding. In the West this generates a completely different kind of goodwill: the goodwill associated with elite, rather than mass, consumer items:

Consumers are urged to buy products which have the identities of producers evident in them, in contrast to industrially produced goods, which, as Marx noted, rendered the labour of the worker, and the connection between the consumers and producers, invisible. It is ironic, and perhaps a testimony to the remarkable malleability of capitalism that this un-erasure of the labour of the producer is a key element in making extra virgin olive oil a valued commodity for those who bemoan the anonymity and mystified origins of industrial food. [Meneley 2004:173]

The productivist concept of brand here is a stand in for the producer, indexing (in different ways) a specific known source for a product. As Coombe points out, that aspect of brand is linked to the related economic concept of “goodwill”:

the mark that accompanies all of one’s goods and makes them recognizable attracts the “loyalty” of consumers, and this loyalty and good feeling is a valuable asset—

goodwill. The positive value of one’s trade is congealed in the exchange value of the sign. The trademark marks the point of origin of the good—and serves as a surrogate identity for the manufacturer—in a national market in which the distances between points of mass production and points of consumption might be vast. [Coombe 1996:210]

But the problems associated with creating goodwill (or trust, more generally) between producers and consumers where production does not immediately attend consumption is not merely a problem created by “vast distances.” Rather, it is a more general problem, a problem of fears of “conspiracy” and claims for “transparency,” that confronts not only economic processes, in which consumption is separated spatially and temporally from production, but also, indeed, any form of mediated discourse, be it economic, political, or interpersonal (West and Sanders 2003). For Georgians, in particular, fears that any and all branded products they consume may be inauthentic, poisoned, or falsified have been rife since the late 1990s, and there are obvious parallelisms in the suspicions with which Georgians approach other forms of linguistically mediated public discourse (Pelkmans 2006; Manning 2007).³

These suspicions, in the case of branded products, are particularly compounded by the fact that brands really are not immaterial wealth at all; in fact, they are all too material—that is, like all signs, they take the form of material objects (empty bottles and labels that can be forged or purchased). We tend to think of brand as belonging rather more to the order of the immaterial (often conflated with “immaterial wealth,” like goodwill, for example). However, one problem Georgian producers have is that brands exist, are realized, through real material objects (the containers that contain objects are as real as the objects that are contained, so, too, the brand is impressed on labels, and so on): that is, brands, token instances of brand, are as concretely material as the token instances of commodities they attend. This makes them subject to all the contingencies that any other material object is subject to. And this is a problem, because the materiality of brand—labeled bottles, for example—is easily separated from the objects in question, either by reusing the bottles with the same labels attached or by forging them. Georgians producers and consumers alike confront an economic situation in which the claim that the material semiotic form of brand uniquely indexes the producer is continuously called into question. And as with political discourse, so with economic: in such an environment of rampant falsification (or rampant “occult cosmologies” of falsification of production [West and Sanders 2003]), goodwill is something that all products lack to some extent. Goodwill is not a problem for an individual brand, or even local goods versus “firm” goods in some cases, it is a problem for branded goods in general (see Pelkmans 2006:188–194).

Through brands, however, products are also attached to figures of consumption: idealized consumers. In the West, attending a general shift from a social ontology of productivism to one of consumerism, there has been a general

move from brand as a figure of production to a figure of consumption (Mazzarella 2003): a semiotic transition from trademarks of production to so-called lovemarks of consumer loyalty (Foster 2005). This perspective on brand seeks to see the "value" of brands as being a joint product of the labor of both producers and consumers. Branded objects attract to themselves not only properties of the subjects ("person-alities") that produce them but also, by association, the subjects that consume them. Robert Foster describes this as the

reattachment of the alienated product to another personality, that is, to the consumer. It is this reattachment that is achieved through branding. I hasten to add that branding involves more than the labour of special workers who design logos and devise advertising campaigns. . . . Branding also involves the work of consumers, whose meaningful use of the purchased products invests these products with the consumer's identity. . . . Put differently, the persons of consumers enhance the value of brands. [Foster 2005:11]

Foster hastens to add that the resulting value (another kind of "goodwill") becomes not the property of these consumers but, rather, is another form of labor that is appropriated by the brand owners (goodwill, let us remember, is a form of property, immaterial wealth). Such a subject-object nexus that now links types of objects to consumers by association and produces loyalties thereby foregrounds consumer involvement in the brand and are what have been called "lovemarks." However, as Foster reminds us, this Maussian moment of consumer appropriation overcoming alienation ("lovemarks") is just as instantly confronted by a Marxian one in the very real, consequential way that these lovemarks are themselves alienated to become immaterial property ("goodwill") of the brand owners (more generally, see Mazzarella 2003:192–195).

The concept of the "lovemark" seems to be embedded in a very different milieu than that faced by Georgian producers and consumers. In some ways, Georgian concepts of brand remain strongly rooted in a generally productivist model of the economy, particularly because there is no sense that a "generalized goodwill" exists in the economy: because of brandlessness, falsification of brands, and unreliability of producers, all branded products are to some extent suspect. Moreover, Georgians do not seem to evaluate the distinction between industrial and nonindustrial production in the same way that North Americans and Western Europeans do; there is no arts and crafts movement legacy that causes Georgians to prize the defects and minute variations that separate craft from industrial production and that make the former more valuable, as in the West. Georgians prize local production of fruits and vegetables, it is true, and the accusation that a food product is from a foreign country implies that it may be dangerous, but the main concern is that the product is Georgian.⁴

In Georgia, the phenomenon of brand is closely allied to the traditional socialist emphasis on production, a nostalgic image of traditional production within the contemporary world of consumption. But it should be added

that unlike Western manufacturers, there is no real sense that Georgians advocate a return to traditional production methods (beyond making vague references to "nuances" of traditional technology): this is not the mark of the birth of a Georgian arts and crafts movement. Nor does the traditional branding here have anything in common with European attempts to appropriate or authenticize traditional artisanal practices or other attributes of localities as legally protected forms of intellectual property (see, e.g., Coombe et al. 2005; Meneley 2004). Georgian beer producers we interviewed, in fact, all strongly avowed that attempts to privatize aspects of national tradition amounted to incomprehensible nonsense: the traditional order by definition belongs to everyone. Rather, we would argue that the referencing of Georgian traditions of production (without ever, it should be stressed, appropriating them in production or as property) reassuringly grounds modern Georgian industrial production within a genealogy of the nation, a unity in which production and consumption are reunited within the nation (autarchy), just as tradition and modernity are reunited.

Contemporary Georgian trademarks and brands do not so much reconnect distant producers and consumers, rather they substitute "figures" (in Goffman's sense [1974:523–537]) or "surrogate identities" (Coombe 1996:210)—what William Mazzarella (2003:187–192) calls "prosthetic personalities"—for absent producers (and consumers). The figures used as brands, then, do not index and try to link up the distant producers and consumers of products, making them present on something like a model of the speech situation; rather, they index a larger totality, an autarchic model of the nation in which the different moments of production and consumption can both be contained. In Georgia, these figures of production and consumption that mediate within the imaginary of the market are drawn from figures mediating within the imaginary of the nation; the social field of alterity constructed by folkloric and ethnographic discourses to organize persons within a nation is adopted and transferred to organize products into brands for a national market.

Something similar to this process of grounding brands in broader social imaginaries has been attested elsewhere. As Coombe, for example, has noted, these figures that mediate within the imaginary of the market are also mediating figures within other imaginaries, drawing on a "symbolic field of social alterity" (Coombe 1996:212) of the nation, the frontier, or empire to structure the field of the market (see also Richards 1990:ch. 3; McClintock 1995:ch. 5). As Coombe argues with respect to 19th-century U.S. brands and trademarks,

dominant U.S. culture was preoccupied with the nature of civilization and its alters, and with the prerequisites of nationhood and its connection to frontiers. . . . Images and descriptions of African-Americans, Indian peoples, and Hispanic and Meztizo subjects. . . . were mass-produced and projected on a national scale through the medium of trademarks. [Coombe 1996:210]

U.S. consumers were "constituted in relation to the embodied otherness" of the savage alterity of the U.S. frontier

(Coombe 1996:209). In the Georgian case, this is not radical otherness ("civilization and its others") but an otherness that verges on asymptotic identity: an ethnographically stereotyped version of national self as traditional other, the mountain dwellers of Pshavi and Khevsureti (Manning in press). The Georgian appropriation of "autoalterity" here is quite similar to a process Mazzarella has called "Auto-Orientalism," which he defines as "the use of globally recognized signifiers of Indian 'tradition' to facilitate the aspirational consumption, by Indians, of a culturally marked self" (Mazzarella 2003:138). This general process, in which "publicly recognized signs of social difference create a pool of cultural resources within which manufacturers fished for their own distinction" (Coombe 1996:211), in the case of Georgia takes two forms: on the one hand, there is an occidentalizing process by which Georgian goods are associated with European technology while still remaining grounded in Georgian traditions ("dual lineages"); on the other hand, there is an indigenizing process by which the traditional lineage of Georgian products is specifically grounded in ethnographic images of Georgianness ("ethnographic branding").

DUAL LINEAGES OF GEORGIAN BEER: GEORGIAN TRADITIONS AND EUROPEAN TECHNOLOGY

After the fall of socialism, industrial production of nearly all food commodities in the Republic of Georgia virtually disappeared. Now, unemployed urban and rural Georgians have retreated to "peasant" subsistence strategies and petty commodity production and transaction. Many foodstuffs consumed in Georgia are now produced "traditionally": that is, on private peasant plots. The withdrawal of the Socialist state from production has left "the nation" as the only alternative model in which the disassociated moments of production and consumption can be reunited within a comprehensive social imaginary. In this context, new Georgian industrial firms seek to ground their own lines of consumer products—primarily beers and soft drinks—in "the nation," not only catering to Georgian consumer tastes (e.g., the ever-popular tarragon-flavored soft drinks) but also making reference in marketing to the use of "traditional methods" in production, "ecologically pure" ingredients grown on national soil by peasants, and Georgian ownership. In fact, the sale-ability of "ecological purity," not lost on Georgians by any means, seems to have been one of those rare unexpected windfalls deriving from their poverty. Very recently Georgian agricultural produce has become popular in Turkey: because Georgians cannot afford labor-saving chemicals such as pesticides, by definition their agricultural products are "ecologically pure."

Although Georgia is known for its wines, industrial production of beer and soft drinks for a local market far outstrips wine production: wine consumption occurs in ritual contexts in which new wine, typically purchased from peasant producers, is preferred; bottled, aged wines are primarily for exports. Beer and soft drinks, therefore, are a key area in which industrial production for indigenous consumers has

been elaborated. Such goods are packaged and presented as both being ecologically pure and following traditional methods, often referencing ethnographic materials about traditional life in brand images even as they proclaim their reliance on Western technologies.

The greatest single exception to the generally dire situation of Georgian industry is the beer industry. In recent years Georgian beer producers have aggressively carved out a dominant market share for products produced in Georgia. The frequently quoted statistic is that something like 94 percent of beer products consumed in Georgia were manufactured in Georgia in 2004, effectively driving out much of the foreign competition in just a few short years (Lomidze 2003). The most successful of these new companies is the Kazbegi Company, which is equally well-known for its soft drink and iced tea products as it is for beer. Kazbegi is the first company in Georgia to have developed a successful and recognizable logo, a picture of one of the national icons of Georgia, Mt. Kazbek (Georgian: Kazbegi, Qazbegi), from which the company takes its name, that in turn adorns all of its products in different lines.⁵ Moreover, Gogi Topadze, founder of the Kazbegi company, is frequently credited with this somewhat miraculous transformation of this sector of the Georgian economy in the late 1990s into one that is now virtually completely dominated by Georgian products. In fact, many have seen the Kazbegi Company in particular, and the beer market in general, as a model for other industries, especially the wine industry, because Georgia is particularly well-known for wines and not beer, and, yet, the indigenous beer market is prospering and the wine market is not. As an example of this, one interviewer in the Georgian press, interviewing a wine producer about the difficulties experienced in the wine industry from taxes and falsification, abruptly changed the course of the interview and began to berate the wine producer to follow Topadze's example. The increasingly frustrated the wine producer offered various cogent reasons why the Topadze model could not so easily be transferred, to no avail:

Interviewer: I don't know Gogi Topadze personally, but I respect him a great deal. Do you know why? He saturated the market with national (erovnuli) production. People are no longer attracted to foreign beers, with pleasure they drink "Kazbegi," "Argo." Why can't our wines do that?

Interviewee: Wine has different problems. Gogi Topadze's products are of high quality. But still he won against imported products by price. Our products are also of high quality. But as a result of taxation our price becomes unable to compete. I don't have the means to sell my wine for less than 2.5 Lari [a little more than a dollar].

Interviewer: That is, you wine-makers should have stood firm like Gogi Topadze and not paid artificially raised excise taxes ...

- Interviewee:** It's not just a matter of being firm. Vodka, beer, whisky all compete with wine . . .
- Interviewer:** Understandable, but what about the fact that "Kazbegi" and "Argo" were able to compete with wine and vodka, aside from that, were able to compete with many foreign beers?
- Interviewee:** As a result of low prices! Then, because falsified production does not represent a hindrance for them. Get rid of falsifiers and we will be able to restore the name and dignity that Georgian wines once had! [Aslanishvili 1999:5]

Topadze's example has had many imitators. Following the lead of what Topadze himself calls the "Topadze ideology," many Georgian companies have emphasized a dual lineage for their products, emphasizing both the European technological modernity of their products and the way their products embody in one way or another Georgian tradition. Billboards throughout Georgia for a range of consumer products often have the same rhetorical juxtaposition of "European Technology" and "Georgian tradition." Of course, Georgian tradition and European technology are synthesized more at the level of marketing than at the level of production.

What then, is the "Topadze ideology"? Topadze, an easygoing, charismatic man, is quite up front about the linkage of politics and economics in his corporate ideology. After all, he is a (not particularly successful) political figure in Georgia, the head of a political party with the suggestive name "Industry Will Save Georgia." The billboard of this party, found outside the Kazbegi headquarters, resembles a socialist-era propaganda poster, showing in order all the separated moments of industrial production from the rows of tea bushes to the ships that carry the products overseas (see Figure 1). Part of the Topadze ideology is attempting to create an atavistic link of national production to national consumption. This happens at the level of mar-

keting (from the use of a logo on all products that links the company to an important national landmark to the specific brands, which often index specific areas within the nation); in production itself (through the exclusive reliance on Georgian capital, labor, and raw materials); and, finally, with consumption (Kazbegi is noted for having attempted to make not only beers for Georgian consumption but also soft drinks, cigarettes, and many other common consumer goods).

Not all of Kazbegi's attempted "national" brands were equally successful. The beer brand Gagra, named after a once-famous tourist resort in Abkhazia lost during the war with that region (1992–93), was patently a failure because it conjured up a part of the national imaginary that everyone wanted to forget, a kind of negative nostalgia. Another interesting example arose during our interview when Topadze produced a carton of a brand of cigarettes the Kazbegi corporation had been unable to market. We opened them and sampled them, as we had his beers and soft drinks: they were no better or worse than any other Georgian cigarettes. In fact, the packages sported an appealing and clever design. Named "Nostalgia" (see Figure 2), these cigarettes visually reproduced the package illustration of a well-known Soviet-era cigarette brand, Kazbek, showing a mountaineer rider riding with the mountain (Russian: Kazbek; Georgian: Kazbegi, also spelled Qazbegi) in the background (see Figure 3).

The brand was unsuccessful, Topadze explained, for the purely prosaic reasons that most Georgian brands fail: competition from lower-priced contraband. The brand, however, encapsulates the covert dimension of the Topadze ideology, inasmuch as it indexes different dimensions of nostalgia, overtly linking traditional imagery of the mountains (the Kazbek brand showing a rider in traditional dress with the traditional symbol of Georgia and mountain traditions, Mount Kazbek) with a covert nostalgia for the socialist past and familiar socialist products from that period. For Topadze, both of these dimensions are linked and extend to a wide variety of products, not just beer, although for those who have borrowed the "Topadze ideology," the primary focus is beer products.

Kazbegi's promotional literature reproduces images from traditional mountain techniques of beer production drawn from ethnographic works as part of a historical narrative that also connects Kazbegi with German beer manufacturing in Georgia (the Kazbegi plant is on the site of the 19th-century German beer plant, the Wenzel Brewery). The traditions of the mountain-dwelling beer brewers are shown in illustrations drawn from classic Georgian ethnographies of their technical apparatus (a massive copper vat with the legend *Iudis saxarshi kvabi*, "beer-brewing vat," is depicted) as well as the ritual apparatus to which beer production is linked in mountain communities (a Georgian mountain shrine priest carrying a sacred flag [*drosha*]; in addition various sacred shrine buildings, including the beer-brewing building, are depicted). The images are drawn from a classic ethnography by Vera Bardavidze (1941), which was

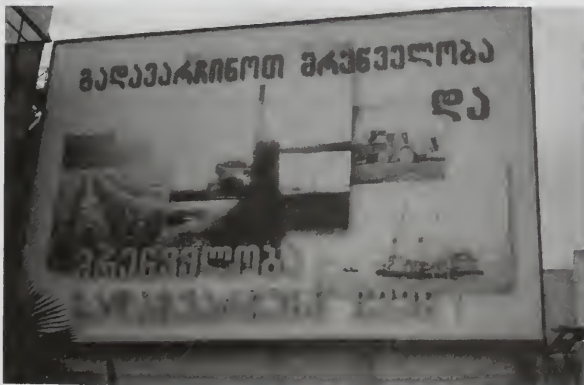


FIGURE 1. Billboard outside the Kazbegi office: "Let's save industry and industry will save us!" (Photo courtesy of the authors)



(a)



(b)

FIGURE 2. Kazbegi's failed brand "Nostalgia": Georgian and English versions. (Courtesy of Kazbegi 1881 JSC)

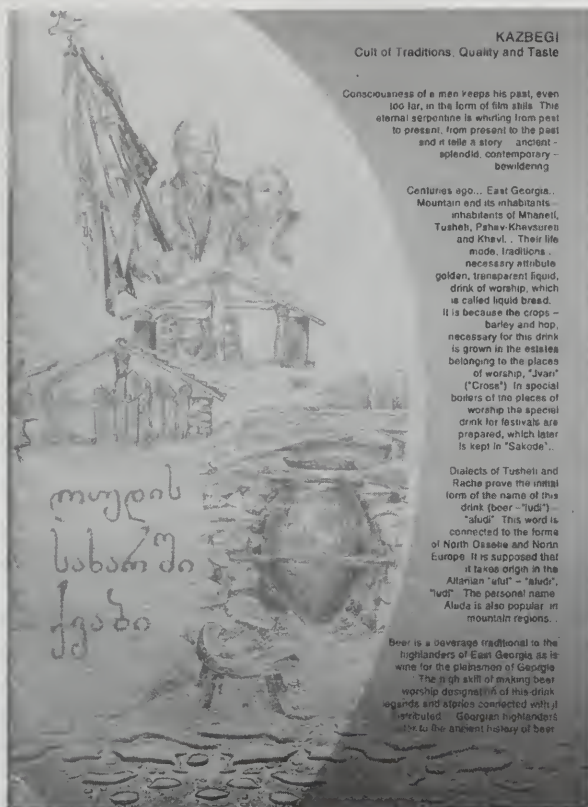
recently rereleased. Opposite them are color photographs of the contemporary functionally equivalent structures in the modern Kazbegi factory (see Figure 4). This dual lin-



FIGURE 3. Socialist era cigarette "Kazbek" package design. (Photo courtesy of the authors)

eage of traditions and technology allows Kazbegi to claim that they have "restored the traditions of the mountain-dwellers, thanks to ancient national methods of beer production enriched by new technology" (Kazbegi n.d.).

The French company Castel, too, proclaims the traditionality of its beer production. For example, in its radio ads for its "Khevsur beer" brand Aluda, it describes "masculine traditions brought down from the mountains." The rest of its ads emphasize that Aluda is "our beer . . . prepared with traditional Khevsur methods," although Aluda is produced in what may be the most modern European factory in Georgia by a European company. When asked how this particular beer, which tasted like any other lager, could be called "Khevsur beer," the Aluda representative smiled. It was, in fact, a stupid question. Of course no one would actually attempt to produce authentic mountain-style beer because actual mountain beer is dark, thick, sweet, and prone to giving powerful headaches, like an evil version of Guinness; a Georgian friend likened it memorably to sweetened motor oil. (We note, however, that the 2007 Aluda summer ad campaign [field notes, 2007] have become more specific,



(a)



(b)

FIGURE 4. Dual lineages: traditional Georgian beer production (left) and contemporary European technology (right). (Courtesy of Kazbegi 1881 JSC)

claiming that the "traditional Khevsur brewing methods" used to produce Aluda boil down to the use of "copper vats" along with, of course, "tasty Georgian water." The copper vats shown in the ad, of course, are not Khevsur copper vats but simply the standard industrial copper vats used in breweries all across Europe.) What, then, is the point of appealing to these mountain traditions of brewing if no one actually intends to use them?

ETHNOGRAPHIC BRANDS

Kazbegi is not the only beer company in Georgia to market its products using traditional imagery from the Georgian mountains. Two other Georgian companies, Lomisi and Tbilludi, as well as the local branch of the French industrial giant Castel, have borrowed this aspect of the "Topadze ideology" to market their products. To ground this new range of beer products in the "nation," Georgian marketers for these companies have created an explosion of brands that harkens to Georgia's imagined traditional exemplars: various groups of ethnic Georgians who inhabit the mountains of Georgia adjacent to Chechnya. These mountain groups—such as the Khevsurs, the Pshavs, and the Tush—have, since the 19th century, been sacralized by generations of Georgian

ethnographers as being the true bearers of the authentic Georgian way of life (Manning 2004a, in press). Since the late 19th century, the mountains of Georgia, regions like Pshavi and Khevsureti, have been understood to represent the unchanging masculine traditional life of Georgia, the Georgian past in the present, just as the plains of Georgia, regions like Kartli where the capital city, Tbilisi, is located, represent the present and future life of the country:

Here [in the inaccessible mountains of Pshav-Khevsureti], in this homeland the Pshav-Khevsur have preserved unchanged until today their ancient, ancestral customs, life, past traditions. In this respect the Pshav-Khevsur is more Georgian [kartveli] (if it can be said so), than the Kartlian [kartleli, resident of Kartli, the central Georgian province] himself. The Kartlian lives more in the present, in the future. If he had not turned his back on the past, still, he avoids facing it. [Khizanashvili 1940:1]

In an ethnographic vision of the nation, these fierce and free, hospitable and brave mountaineers, spouting poetry and avenging blood for blood, embody all that is best about Georgians in general (Manning 2004a, in press). Georgian advertisers turned to this ready-made iconography of the nation to articulate their claims to a national



FIGURE 5. Ethnographic map of Georgian beer brands. (Courtesy of author)

market, turning idealized figures of ethnographic and folkloric others into images that could be used to organize an array of industrial products for a national market. In an interview as early as 1996, Topadze connected his choice of the name *Kazbegi* and familiar national symbol of Mount Kazbegi as the logo of his products to indigenous ethnographic traditions of beer brewing preserved by mountain dwellers:

You will remember, that the population of our mountainous regions, the Mokhevians [residents of the area around Mount Kazbegi] and Khevsurs since time immemorial pursued the brewing of beer with folk technology. In our own production are inserted nuances of precisely this technology and for that reason too these names were chosen. [Tbilisi 1996:2–3]

Whatever these “nuances” of folk technology might have been, by 2005 the tendency to use different ethnographic groups from a small region of the Caucasus mountains bordering Chechnya and to categorize and differentiate what were essentially all the same Lagers (ethnographic branding) had reached a high point with no end in sight. In effect, the beer brands of Georgia today look just

a little bit like the ethnographic groupings of the Georgian ethnographic museum in bottled form (see Figure 5).

Just as the plains dwellers of Georgia traditionally drink wine, for these mountain dwellers the traditional ritual drink is beer. This particular ethnographic fact allows beer to be seen as a traditional Georgian beverage alongside wine and, more generally, allows modern industrial beers to be associated with the timeless ethnographic traditions, rituals, and general masculinity of the Georgian highlanders. The labels of the Castel Company’s Khevsur Beer Aluda (see Figure 6) and the Kazbegi beer Pshavi (see Figure 7) both reproduce familiar ethnographic images of the typical Khevsur or typical Pshavian man in traditional dress against a suggestive traditional landscape.⁶

Similarly, the rhetoric of commercials for these brands indexes Georgian traditions of production and consumption in slightly different ways, but all of them link their frankly quite novel European products to specific traditional contexts of production or consumption. A particularly good example is a commercial for Kazbegi’s Pshavi, which displays the entire traditional contexts of production and consumption of beer in an idyllic scene of traditional

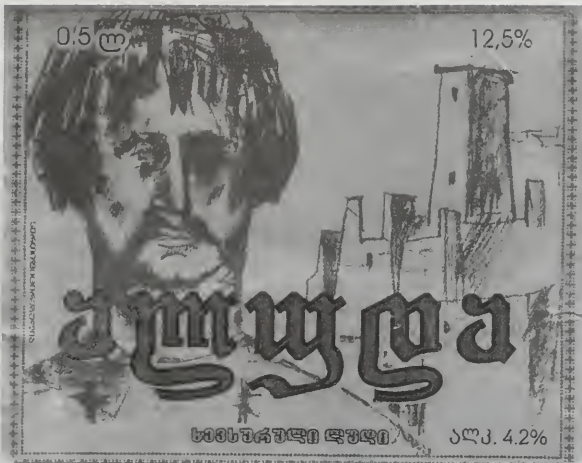


FIGURE 6. Aluda: a Khevsur beer. (Courtesy of Castel Sakartvelo)

mountain life in the mountains of Pshavi. The commercial opens with springtime flirtation between a Pshavian lad and lass otherwise engaged in traditional occupations, the Pshavians being as noted for traditions of romance as they are for poetry (Manning in press). The commercial then moves on to an image of an older man (indexing respect for the elders and tradition) and then to a man engaged in brewing beer using traditional methods (see Figure 8a). The technical process of traditional beer production is followed in particular detail, with traditional implements, and the commercial notes in particular that the craftsman making the beer pictured is "certified." Then the ad moves seamlessly from scenes of traditional beer production to traditional beer consumption (see Figure 8b), at last juxtaposing the traditional Pshavian beer poured from a traditional serving pitcher to the modern bottled beer brand "Pshavi" (see Figure 8c). The Pshavians are noted for being poets and their poetic cycles

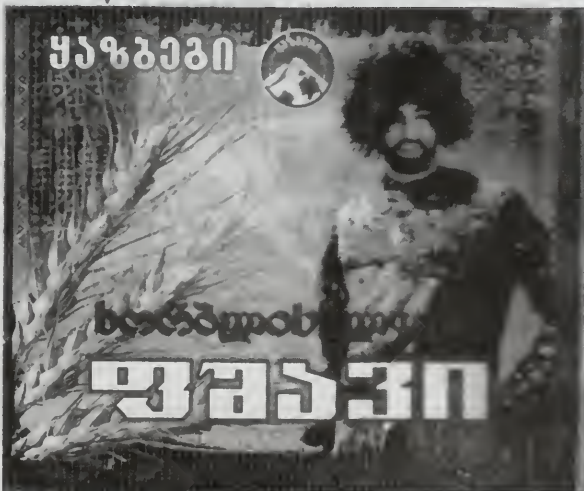


FIGURE 7. Pshavi: a wheat beer. (Courtesy of Kazbegi 1881 JSC)

are a central focus of Georgian folkloric research; thus, the ad's text is in fact set as a traditional Pshavian poem:

Roca k'i gazapxuldeba, gamoighvidzebs kveqana,
When spring comes, the world awakens,
silaghe simxiarule, daseimoben qvelgana.
Freedom, happiness, walk about everywhere.
[See Figure 8a]

Shasvi pshavuri—et'qvian, xorblis ludia sviani,
Drink Pshavian, they say, it is a wheat beer with hops,
gvitxari rame ghtvis madlsa, erti kartuli gziani.
Tell us something, by the grace of God, having a Georgian way. [See Figure 8b]

ludi pshavi—kartuli mtis istoria.
Pshavi Beer—the history of the Georgian mountains.
[See Figure 8c]

This commercial by Kazbegi is perhaps the most complete grounding of a beer in idyllic scenes of traditional beer production and consumption, appropriate for the Kazbegi product, which is most directly linked to this project of ethnographic branding. Other companies have used simpler gambits to link together some aspect of their product and this mountain tradition, sometimes emphasizing traditional production, sometimes emphasizing traditional scenes of consumption.⁷ In the case of this commercial, a whole traditional trajectory from production to consumption is highlighted.

CONCLUSION: BRAND, CIRCULATORY OBJECTS AND SOCIAL IMAGINARIES

Georgian brand makers invoke ethnographic figures of Georgian mountaineers as a basis for their brands in part simply because it is there, in the Georgian mountains, that indigenous traditions of beer production are found. But emphasizing ethnographic traditions of production is not intended to argue that the contemporary product is concretely produced by such methods (beyond small "nuances" or copper vats); this is not an attempt to pass off an industrial product as a product of craftsmanship (as in the cases discussed by Meneley 2004). Rather than opposing tradition to modernity as craft production to industrial production (as in the Western "Slow Food" movement discussed by Meneley 2004), Georgian producers seek to create a "dual lineage" for their products, which supposedly represent both an indigenous tradition and European modernity.

This "dual lineage" is something that Georgians like to imagine themselves as having with respect to Europe in general. Georgia, a country on the uncomfortable shifting border of an imagined geographic opposition between Europe and Asia, does not like to emphasize the alterity of Europe to Georgianness as modernity to tradition, for that would consign them to be forever in the "backwards" status of being traditional, non-European, and nonmodern (for a more general discussion of Georgia's recent history, see Manning 2007; Pelkmans 2006). Such an untroubled nostalgia for tradition is, perhaps, diagnostic of those who feel that their claim to modernity is unchallengeable.



(a)



(b)



(c)

FIGURE 8. Screen stills of a Pshavi beer commercial: a. traditional Pshavian context; b. traditions of Pshavian beer production and consumption; c. linking the traditional Pshavian beer to the modern brand "Pshavi." (All images courtesy of Kazbegi 1881 JSC)

Unlike other colonial situations, such as the situation described by Partha Chatterjee (1992), Georgians do not oppose European technical modernity to indigenous Georgian tradition: they treat them as being variations of the same thing. Georgians like to say that they were European and modern before Europe was and that they experienced a hu-

manistic renaissance before Dante; however, they also sense that their country is not yet, in fact, European and modern (Manning 2007).

The same ambivalence attends the marketing of indigenous production, hence Georgian producers suture together these uneasy discourses of opposition and assimilation in

a dual lineage and ambivalently ground their products both in European technical modernity and Georgian tradition. The problem that such a strategy addresses is how to incorporate Georgian goods into the evaluative hierarchy that confers prestige uniquely on foreign "firm goods" (goods emanating from the "Imaginary West"; see Yurchak 2006:ch. 5).

Alexei Yurchak has persuasively shown how under late Soviet socialism, Western "firm" goods, often stripped down merely to the *leibl* (label) without the associated use value, served primarily as physical, indexical incarnations of the "imaginary West" and resources for constructing imaginary worlds, rather than guarantors of the value of the associated product (often no longer present in any case), a token-mediated semiotics of presentification opposed to the type-level semiotics of authentication and goodwill (Yurchak 2006:195–197).⁸ Under such circumstances, there is a poetization of the semiotic apparatus of brand, wherein (the fantasy of all brand theorists) the material signifier of brand (*leibl*) becomes detachable from its putative object, self-referential and self-valuable. The function of brand here is displaced from a productivist or consumerist semiotic orientation that locates goods in relation to producers or consumers to one that indexes the imaginative geography within which the goods circulate, often with what Mazzarella calls an "aspirational" aspect, indexing a kind of unrealized desire or yearning for the elsewhere from which the branded good comes (2003:102). Under such circumstances, the brand can become the tail that wags the commodity dog. Mazzarella has argued that Western brands in India have a similar aspirational, Occidentalist content, incarnating categories of imaginative geographies such as "the imaginary West": so similar, in fact, that the following could just as well be a description of the semiotics of firmenye goods under socialism and postsocialism (cf. Fehervary 2005:ch. 6; Yurchak 2006:ch. 5):

Major Western brands became important markers of social distinction for a small elite.... Much of the mystique associated with these goods depended on their capacity to serve as physical embodiments of a source of value that was understood to reside *elsewhere*. This elsewhere might in shorthand be called "the West," but in fact it was conceived as at once concrete and abstract, as a real place and as a mythical location. The de facto magic of the goods was that they provided concrete, *present* evidence of this absent source, as conjured in advertising. Auratic in Walter Benjamin's sense, at hand, tactile, yet transcendently irradiated, these brands reverberated with what one might call a kind of "close distance." [Mazzarella 2003:256]

The evaluative hierarchy of concrete goods followed the outlines of the socialist period imaginative geography into the postsocialist period. Prior to the elaboration of postsocialist Georgian production, Mathijs Pelkmans has shown how foreign "firm" (*sapirimo*) goods and their typifying material qualities were articulated into complex hierarchies of value that in a sense reflect an orientalist imaginary of alterity (which privileges European foreign goods

over Asian ones) but also a socialist one (which privileges quality [essence] over packaging [appearance]). Thus, European goods (expensive, good quality, beautiful) outrank Russian goods (cheap, good quality, but ugly), and these in turn outrank goods from Turkey (cheap, relatively good looking, but poor quality; Pelkmans 2006:184–188). What we have tried to show is that the strategy of "dual lineage" seeks to overcome the inherited opposition between Western "firm" goods and local goods. All sorts of food products (beer, soft drinks, even bread) are advertised as incorporating European technology with Georgian traditions; even European-style beers marketed by Georgian companies (with German or Czech brand names) insist that they are marriages of German or Czech technology and Georgian traditions.⁹ Georgian brands then depict Georgia as an affinal, rather than consanguineal, kin of Europe.

Because the primary concern of Georgian marketers is not "traditional craft production," their invocation of ethnographic figures of the imaginary of the nation within the imaginary of the market to create brands for products is based on a desire to ground the production and consumption of their product within tradition in general. In general, then, the phenomenon of brand is something that does more than merely link producers or consumers to products, exchanges, and associations of properties of subjects and objects. Brands also index a relationship between an individual circulating object and a whole social imaginary of circulation, whether that imaginary is one of European modernity or Georgian national tradition. Brands become like mythic genealogies rather than trademarks ensuring goodwill; labels become miniature ritual incarnations, affixed by glue, of whole cosmologies of circulation.

While recent anthropological treatments of brand (e.g., Foster 2005; Mazzarella 2003) have taken inspiration from Maussian exchange theory, we believe that brand might also be approached from a perspective more indebted to Arnold Van Gennep: in effect a relinking of Marxian approaches to economic production and circulation to Van Gennep's concern for the linking of spatial classification with spatial transition or qualitative transformations of persons and goods in circulation or ritual, the way "boundaries are transcended through exchanges of persons and goods that both define and blur those boundaries" (Beidelman 1997:26). Although social anthropological approaches to ritual were bedeviled by a sharply drawn but ill-defined "you know it when you see it" sort of opposition between "technical" and "ritual" ("symbolic") transformation of objects (see, e.g., Galaty 1983:366–368; Pfaffenberger 1992), it remains that this older literature represents some of anthropology's most sustained consideration of materiality and meaning, the intersection of causation and signification (Keane 1997:18–20, see also ch. 3). The "technical" production of goods is at the same time a "symbolic" or "ritual" reclassification. Both involve transformations of the potentially meaningful qualities of objects (Peircean "qualisigns"; Keane 2003; Munn 1986): sociotechnical (indexical, causal) transformation of object qualities ("quali-") and their symbolic reassignment as signs ("sign"; see Galaty 1983:367; Keane 1997:18–20,

see also ch. 3). This process of semiototechnical transformation of qualisigns, involving transformative moments of both causation (quali-) and signification (-sign), does not end with the production process but continues through exchange (Keane 1997:ch. 3; Munn 1977, 1986).

Production, exchange, and consumption involve interlinkages of circulation and qualitative transformation of objects in which sociotechnical transformations of object qualities and their semiotic transformation into meaningful qualisigns in production or subsequent circulation are all asymptotic moments of one single process of transformation (Munn 1977). Just as acts of production of individual commodities are akin to ritual transformations that involve both asymptotically symbolic and technical dimensions, transformations, and associations of the qualitative properties of subjects (persons) and objects, so too their circulation involves further transformation, recategorization, and both material and metaphoric "rites of passage" so that goods presuppose and create the social categories of space and time ("space-time") in which they move (Lee and Li Puma 2002; Munn 1977, 1986).

The material and semiotic properties of the circulatory object itself that mediate these space-times becomes particularly analytically important here, in that a given circulatory object can be treated as a "condensed space-time, and may be analyzed to give a fuller account of the wider intersubjective space-time in which it operates" (Munn 1986:10). Brand is just such a semiotic property of a circulatory object that allows it to act as a "condensed space-time," with respect to both economic and political imaginaries. Semiotic phenomena like brand involve a semiotic apparatus that stands in a metasemiotic relation to the process of circulation, and this semiotic apparatus can be reflexively attached to the circulating object (a label) and also exists independently of it (a TV advertisement). The semiotic apparatus of brand does not merely serve to locate objects as vendible goods with respect to purely economic imaginaries like the market, it also serves to locate them in terms of other cosmological systems, including the imaginative geographies of Orientalism, Occidentalism, and nationalism.

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NOTES

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1. There are many similar, essentially neoliberal, academic arguments that locate the historical reasons for the demise of socialism in its paternalistic productivist neglect of the desires of the con-

sumer. Such literature on "consumption" often presents the consumer as a universal agent standing outside history; *homo faber* is replaced by *homo emptor*. For different examples (from otherwise seemingly very different disciplinary and political orientations), see Miller 1995:16 and Aslund 2002. For a critical approach to universalizing consumerist social ontologies in other contexts, see Mazarella 2003 and Fehervary 2005.

2. These two methods of linking product to source are conventional representation versus what we might indexical "presentification" (Vernant 1991) and type mediation ("true and accurate copies") versus token mediation ("moments" of "real contact").

3. This is what Georgians call *palsipik'acia*: falsification, the antonym of *production*, standing as "lies" to "truth" in linguistic communication just as *goodwill* in a sense stands to *trust*. Ex-President Eduard Shevardnadze often quipped that in Georgia "there is more falsification than production" (field notes, 2001–02).

4. As noted, Georgians cannot afford chemicals in agricultural production, so their products are ecologically pure by default.

5. See, for example, Figure 7, top and center. On the significance of Mt. Kazbegi, see Manning 2004.

6. The Castel Company's Khevsur Beer Aluda is named after a Khevsur hero named Aluda Ketelaury from a famous poem by Pshavian poet Vazha Pshavela. In addition, the name *Aluda* also recalls the Georgian and dialect words for beer (*ludi*, *aludi*).

7. Space does not permit us to discuss these companies here. This topic will be addressed in a chapter of a book in progress on Georgian drinking culture.

8. According to some, it was precisely the possession of a *leibl* that made a thing a "firm" good (*firmenye*). Hence, it is not surprising that the "use value" of a *firmenyei* good would be, in essence, the label.

9. Some bread companies in Georgia now insist that their traditional breads are cooked on Italian stone ovens.

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From Feasting to Cuisine: Implications of Archaeological Research in an Early Honduran Village

ABSTRACT Research at the site of Puerto Escondido in northern Honduras produced evidence of foodways in one of the earliest known villages in Central America. Much of the material recovered is related directly or indirectly to the production, preparation, and consumption of food. In everyday practice, the organization of food consumption in villages like this would have been central to the reproduction of social relations. In other early villages in Central America, the use of food for political ends has been given a causal role in the development of social stratification. Drawing on evidence for one particular food practice, the preparation and consumption of fermented and unfermented cacao beverages, we argue that it is through the elaboration of cuisine—regimes of taste and presentation—that food production, serving, and consumption played both of these roles. [Keywords: social relations, alcohol, food consumption, stratification, social reproduction]

A LARGE PART OF THE DATA available to archaeologists is in one way or another related to foodways: producing, storing, preparing, serving, consuming, and disposing of the remains of foods. Even the human skeleton is a record of what the person ate during his or her lifetime. It should be unsurprising that archaeological interpretations often place foodways in central positions. This article is thus an intervention in a long-established tradition. We describe data that allow us to infer what foods people were cultivating, preparing, and consuming in one of the earliest farming villages in Central America. We explore how these data allow consideration of the experiential dimension of taste and social elaboration of cuisine that in our view must have had a central role in encouraging the proliferation of human foodways (Hastorf 1998, 2003; Norton 2006; Smith 2006).

Changes in the form of vessels in which foods containing cacao were prepared and served over a period of at least 800 years at Puerto Escondido, Honduras, imply changes in both culturally encouraged preferences (taste) and social relations related to food (cuisine). We argue that a shift from drinking alcohol, produced from fermenting cacao pulp and seeds, to preparing and drinking nonalcoholic chocolate drinks accompanied the development of new ways of emphasizing the hospitality of hosts. We suggest that, in

the process, work that was carried out before the events in which drinks were shared was made more central to social relations by the addition of performative steps of serving.

A CONTEXT FOR CUISINE: PUERTO ESCONDIDO, HONDURAS

At the village of Puerto Escondido, Honduras, we have identified evidence for the use of cacao circa 1150 B.C.E., where it was employed initially, we argue, in the form of an alcoholic beverage (Henderson and Joyce 1998, 2006; Joyce and Henderson 2001, 2002, 2003). Puerto Escondido is located on a small tributary of the Chamelecon River, one of two tropical rivers that form the lower Ulua Valley on the Caribbean coast of Honduras (see Figure 1). Our excavations show that people living at Puerto Escondido experienced episodes of flooding that deposited sediment across the site (Henderson and Joyce 1998, 2004; Joyce and Henderson 2001, 2002).

Our data comes from excavations through up to 3.5 meters of such sediments, which buried residues of human occupation from before 1600 B.C.E. to circa 450 C.E. Our access to the traces of earliest episodes of settlement was facilitated by the partial destruction of site features by bulldozing, site destruction that initiated our work,



FIGURE 1. Map showing location of Puerto Escondido.

which was carried out in collaboration with the Honduran Institute of Anthropology and History. Over four field seasons, we tested areas of two large earthen platforms and identified ancient surfaces buried below the modern surface of each (Joyce and Henderson 2001; Joyce 2004, in press). In three areas we were able to excavate blocks of these buried surfaces. We continued excavation in one 2 × 2-meter stratigraphic test unit to levels where we ceased to recover cultural materials or traces of human constructions. The sequence of deposits is evidence of a continuing occupation at this place marked by intervals of remodeling of the pole and clay-walled buildings we interpret as houses.

Chronology of Occupation

Analysis of carbon from excavated deposits produced a series of 42 chronometric dates for specific episodes in the sequence of site formation (see Table 1). These radiocarbon dates allow us to define intervals of time corresponding to different activities that resulted in specific parts of the deposits we excavated. When we examine the materials made and discarded at these different points in time, we are able to identify changing practices at Puerto Escondido over time.

The earliest deposits we tested must have been created sometime prior to 1600 B.C.E. (a period we call the Sauce phase). We believe the first people here were temporary visitors processing locally available materials as part of a mobile use of a more extensive landscape (see Clark and Cheetham 2002). At some time after these visits, a long period of use of the site as a location for the construction of perishable structures began (Joyce in press). Riverine sediment deposited in between surfaces that showed the traces of these structures included the earliest examples of pottery recovered at the site. Two radiocarbon samples dating to before 1400 B.C.E. (the end of our Barahona phase, dated 1600–1400 B.C.E.) came from levels with this early pottery.

Remains of early, perishable houses were covered by sediments deposited between 1400 and 1100 B.C.E. (a pe-

riod we call the Ocotillo phase). In one area of the settlement, we excavated the remains of ovens dating 1150 to 1100 B.C.E. that could have served for producing new pottery developed at the time (Joyce and Henderson 2003). Immediately succeeding levels date to approximately 1100–900 B.C.E. (the Chotepe phase). At the end of this period, the sequence of remodeling of houses that had continued for centuries ended with a major architectural project that fundamentally changed the use of space in the part of the settlement near the ovens (Joyce 2004). One building was burned and razed. Under the debris of the walls, on the interior floor of this building, were large numbers of pieces of broken pottery, apparently deposited in a single rebuilding event. In every area of the settlement that we have sampled, similar pottery was included in the sequence of house remodeling deposits that yielded carbon dating to this period.

Dramatic changes in material practices marked the transition to the next set of deposits, dating circa 900–700 B.C.E. (the early Playa phase). The building razed at the beginning of this period was turned into fill for a large earthen terrace that contained at least two human burials and a number of deliberately buried complete jars (Henderson and Joyce 1998). Around the same time, in a second area of the site, other major architectural projects were initiated that eventually resulted in the creation of a massive hearth, a multistep platform with stone terraces, the construction of multiple stone cist graves, and the creation, use, and disposal of a life-sized stone sculpture of a seated human being (Joyce and Henderson 2002). Developments after these events are less dramatic until around 450 C.E., when early Classic period people buried earlier deposits under the remains of new groups of houses built without apparent consideration of earlier building locations.

Direct Evidence for Foodways at Puerto Escondido

The most obvious route to explore foodways in this early village would be the identification of plant remains in sediments collected and subjected to flotation. Palaeoethnobotanical analyses readily identified maize in Classic period sediments from Puerto Escondido, but the only examples of plant tissue and seeds recovered from Formative deposits (dating ca. 700–200 B.C.E.) were unidentifiable seeds, fragments of wood, and lumps of parenchymous tissue. Isotopic analysis of human remains recovered from the Talgua caves in Southeast Honduras, whose use was in part contemporary with early Puerto Escondido, also suggested maize may have been relatively unimportant (Brady et al. 2001; Herrmann 2002). These analyses suggest that in early Honduran villages, maize was an inconsequential part of the diet. Ground stone tools that could have been used for processing seeds are also absent in our excavations of Formative Period deposits at Puerto Escondido, appearing only in early Classic contexts.

One plant we know was consumed by 1100 B.C.E. at Puerto Escondido was some member of the genus *Theobroma*, the botanical source of chocolate (Henderson and

TABLE 1. Radiocarbon dates from Puerto Escondido.

Sample identification and excavation context	Calibrated date (2 sigma range)	Conventional radiocarbon age	C13/C12 ratios
Barahona Phase			
Beta-129130 4BH-50	cal BC 1750-1310	3250 +/- 100 BP	-24.8
Beta-129129 4AW-107	cal BC 1700-1510	3320 +/- 40 BP	-24.8
Early Ocotillo Phase			
Beta-154248 6A-60	cal BC 1380-1100	2990 +/- 40 BP	-26.1
Beta-154252 6A-71	cal BC 1380-1100	2990 +/- 40 BP	-26.7
Beta-154248 6A-60	cal BC 1390-1110	3000 +/- 40 BP	-26.7
Beta-154249 6A-62	cal BC 1390-1120	3010 +/- 40 BP	-25.5
Beta-129128 4AW-100	cal BC 1410-1120	3030 +/- 50 BP	-30.9
Beta-154264 7B-87B	cal BC 1400-1190	3040 +/- 40 BP	-28.2
Beta-129132 4BH-65	cal BC 1410-1210	3050 +/- 40 BP	-25.4
Beta-154265 7B-87C	cal BC 1440-1290	3110 +/- 40 BP	-27.7
Late Ocotillo Phase			
Beta-154241 4DK-139	cal BC 1280-1010	2940 +/- 40 BP	-24.2
Beta-154251 6A-70	cal BC 1290-1020	2950 +/- 40 BP	-30.2
Beta-154253 6C-41	cal BC 1290-1020	2950 +/- 40 BP	-25.9
Beta-154240 4DK-138	cal BC 1290-1020	2950 +/- 40 BP	-10.2
Beta-154257 6C-57	cal BC 1290-1020	2950 +/- 40 BP	-14.7
Beta-154259 6C-72	cal BC 1300-1030	2960 +/- 40 BP	-21.1
Beta-154255 6C-53	cal BC 1310-1040	2970 +/- 40 BP	-27.1
Beta-154245 6A-37	cal BC 1320-1060 and cal BC 1360-1350	2980 +/- 40 BP	-25.2
Chotepe Phase			
Beta-129134 4EC-66	cal BC 1110-900	2830 +/- 40 BP	-26.1
Beta-154236 4DA-12	cal BC 1110-900	2840 +/- 40 BP	-12.7
Beta-154244 4DL-109	cal BC 1110-900	2840 +/- 40 BP	-26.7
Beta-129135 4EC-68	cal BC 1120-910	2850 +/- 40 BP	-25.5
Beta-154237 4DC-145	cal BC 1140-920	2870 +/- 40 BP	-26.6
Beta-129131 4BH-62	cal BC 1140-920	2870 +/- 40 BP	-23.3
Beta-154238 4DK-111	cal BC 1190-930	2880 +/- 40 BP	-25.3
Beta-129133 4EC-53	cal BC 1210-970	2900 +/- 40 BP	-27.9
Beta-154246 6A-43	cal BC 1210-970	2900 +/- 40 BP	-26.1
Beta-129127 4AV-54	cal BC 1260-930	2900 +/- 50 BP	-25.6
Early Playa Phase			
Beta-129126 4AV-50	cal BC 940-810	2730 +/- 40 BP	-26.9
Beta-154271 8A-94	cal BC 1010-830	2780 +/- 40 BP	-26.1
Late Playa Phase			
Beta-154275 8K-30	cal BC 390-180	2220 +/- 40 BP	-25.8
Beta-154272 8D-68	cal BC 400-200	2260 +/- 40 BP	-26.2
Beta-154276 8K-31C	cal BC 400-350 and 300-220	2290 +/- 40 BP	-25.5
Late Chamelecon Phase			
Beta-154273 8J-6B	cal AD 250-430	1680 +/- 40 BP	-25.0
Beta-154269 8A-65	cal AD 240-420	1710 +/- 40 BP	-25.9
Beta-154270 8A-69	cal AD 230-410	1730 +/- 40 BP	-27.2
Early Ulua Phase			
Beta-154262 7B-57C	cal AD 430-630	1520 +/- 40 BP	-26.9
Beta-129125 4AU-60	cal AD 430-620	1530 +/- 40 BP	-23.9
Beta-154243 4DL-39	cal AD 420-610	1550 +/- 40 BP	-27.3
Beta-154274 8J-11B	cal AD 400-560	1590 +/- 40 BP	-25.4
Beta-154268 8A-50B	cal AD 350-530	1630 +/- 40 BP	-26.2
Late Ulúa Phase			
Beta-154261 7B-30	cal AD 650-770	1330 +/- 40 BP	-27.2

Note: All samples are charcoal. Beta Analytic calendar calibrations calculated with calibration data published in *Radiocarbon*, vol. 40 (1998), using the cubic spline fit mathematics published by Talma and Vogel (1993).

TABLE 2. Sherds of individual vessels from Puerto Escondido with confirmed evidence of cacao residues.

Phase	Excavation context	Vessel surface treatment type and form
Playa (900–200 B.C.E.) Chotepe (1100–900 B.C.E.)	8K-31	Bodega Brown Burnished Type, bottle spout
	4DC-23	Bonilla Yellow-Brown Type, open bowl with flaring walls
	4DC-104	Boliche Black Type, base of open bowl with vertical walls
	4DC-116	Bonilla Yellow-Brown Type, fugitive red, open bowl with flaring walls
	4DC-118	Urbe Pattern Burnished Type, jar
	4DC-118	Boliche Black Type, open bowl with flaring walls
	4DC-130	Fía Metallic Gray Type, open bowl with flaring walls
	4DC-130	Boliche Black Type, open bowl with flaring walls
	4DL-107	Boliche Black Type, open bowl with flaring walls
	4DM-17	Fía Metallic Gray Type, open bowl with flaring walls
Ocotillo (1400–1100 B.C.E.)	4DK-136	Barraca Brown Type, bottle neck

Note: Data provided by Patrick E. McGovern of the Museum Applied Science Center for Archaeology, University of Pennsylvania Museum, Philadelphia.

Joyce 2006). Plants in the genus are the only known sources in the region for theobromine, one of the active chemicals in chocolate (Bletter and Daly 2006; Kufer and McNeill 2006; Ogata et al. 2006). The distinctive distribution of plants yielding theobromine and caffeine has been exploited as a means to detect residues of cacao drinks in porous, low-fired pottery typical of Central American sites, ever since the technique was first tested successfully on vessels that had inscriptions identifying their contents as cacao (Hall et al. 1990; Hurst 2006). Prior analyses have relied on residues contained inside intact vessels. Using a different method to extract samples from the interior of fragments, Patrick McGovern succeeded in extracting samples from 13 pieces of broken vessels from Puerto Escondido (see Table 2). Eleven tested positive for traces of diagnostic chemicals, theobromine and caffeine, in analyses by three different labs using a mixture of extraction and detection methods (Henderson et al. 2007).

Indirect Evidence for Foodways at Puerto Escondido

Fragments of pottery vessels are the single most abundant category of material remains from Puerto Escondido. To date, we have recorded information on over 20,000 individual potsherds. About 70 percent of this pottery comes from Formative Period deposits. Approximately 3,500 potsherds recorded in detail came from a single deposit deposited between 1000 and 900 B.C.E. This event was probably not typical of everyday pottery use at the site at the time, and we suggest it is the residue of a shared meal marking a remodeling event. Other sherds from Formative Period deposits were incorporated in sediments covering house floors and may be more typical of everyday pottery. A sample of approximately 10,000 sherds from such contexts provides the basis for our characterization of vessels used at the site, complemented for the period 1100–900 B.C.E. by the 3,500 sherds from the special deposit. Over time, there were changes in the set of vessel forms that were made and used, implying changes in the ways that foods were prepared and served.

The earliest sherds we recovered were from well-made, thin-walled, carefully decorated vessels (see Table 3). There

are no large jars in collections from before 1100 B.C.E. that might be appropriate for storing large quantities of food. Nor do we have any potsherds with evidence of use in cooking from these early levels. Instead, before 1400 B.C.E., we find open bowls and round-sided bowls with incurved rims (*tecomates*). These red-clay slip or dark brown–black vessels are decorated with groups of punctations made with the edge of a shell. Red slip was used as a band around the rim of some vessels. The *tecomates* we have recorded in our earliest samples have particularly small mouth openings, while the bowls fall into two groups at the medium to large end of the spectrum of sizes recorded overall for bowls at the site.

After approximately 1400 B.C.E., this limited set of vessel forms was expanded with the addition of the first bottles recovered from the site (see Figure 2). These have globular bodies, often shaped as effigies of squashes, with a single, centrally placed cylindrical spout four to six centimeters in diameter. Bowl size range is expanded to include bowls larger and smaller than the medium and large size ranges previously found. In addition to smaller *tecomates* overlapping in size with those of the previous period, a group of incurved rim bowls with wider mouth openings was recovered. The decoration of these vessels changed, with dentate stamped designs dropping out of fashion. Some vessels (including some of the new bottles) have geometric designs painted in red, with both the red designs and the brown background polished to a lustrous finish. A few vessels have white slipped zones, sometimes combined with contrasting red zones. Individual sherds preserve traces of a bright pink slip, a purple-red slip with particles of silvery iron minerals, and a black slip with a metallic appearance that may be based on graphite. (These are so fragmented that we do not know what vessel form they decorated, and so the type names are not listed separately in Table 3.) A number of the larger *tecomates* and larger bowls were finished with a uniform matte surface that was polished in zoned designs with a narrow tool that formed linear marks. These pattern-burnished vessels had zones of diagonal lines alternating in direction or crossing each other to form lattices, subtle patterns that reflect light more than the unburnished areas around them.

TABLE 3. Changes in ceramic vessel forms at Puerto Escondido, 1600–200 B.C.E.

Phase and dates	Vessel form	Type name	Surface finish details
Barahona (1600–1400 B.C.E.)	round-sided, flaring bowls (diameter 16–20 cm and 26–28 cm)	Buнавista Brown	glossy surface with some patterned burnishing
		Coronel Red on Brown	red rim band, some patterned burnishing
		Usula Dentate Stamped	impressed marks made with the edge of a shell on smoothed red, brown, or black surface
	incurved rim bowl (tecomate) (diameter 5–10 cm)	Lega Black	black surfaces, smoothed
		Buнавista Brown	
		Coronel Red on Brown Lega Black Usula Dentate Stamped	
Ocotillo (1400–1100 B.C.E.)	flaring open bowls (diameter 12–18 cm, 24–26 cm, and 30–34 cm)	Barraca Brown	glossy brown surface, some grooved lines
		Rosa Red on Brown	glossy brown surface, red geometric designs
		Urbe Unslipped	patterned burnishing on brushed or matte surfaces, black to brown
		Tiza White	glossy white slip, some glossy red bands
	incurved rim bowl (tecomate); some with short vertical neck (diameter 6–12 cm and 16–20 cm)	Barraca Brown	
		Urbe Unslipped Rosa Red on Brown	
	bottles with central cylindrical spouts (spout diameter 4–6 cm)	Barraca Brown	glossy brown surface, some bodies with grooves and modeling suggesting squashes
		Rosa Red on Brown	
Chotepe (1100–900 B.C.E.)	bowls with flat bases and flaring or vertical walls (diameter 18–28 cm)	Boliche Black	glossy black surfaces, deep carved designs, some fugitive red pigment
		Fía Metallic Grey	glossy grey surfaces, deep carved designs, some fugitive red pigment
		Bonilla Yellow-Brown	glossy tan surfaces, deep carved designs, some fugitive red pigment
		Sukah Differentially Fired	smoothed surfaces, areas fired in contrasting black and light buff
	vertical or slightly flaring neck jars (diameter 14–18 cm and 24–28 cm; neck 1.5–5 cm tall)	Urbe Unslipped	patterned burnishing on matte brown surface
		Rubi Red Painted	red slip on rim and zones of body, zones with pattern burnishing on matte background
	incurved rim bowl (tecomate), some with short vertical neck (diameter 10–18 cm and 22–28 cm)	Urbe Unslipped	patterned burnishing on brushed and matte brown surfaces
		Rubi Red Painted Boliche Black Bonilla Yellow-Brown Boliche Black	
	bottles with wide cylindrical necks (diameter 12–14 cm)	Fía Metallic Grey Bonilla Yellow-Brown Boliche Black	
	shallow plates (diameter 30–32 cm)	Bonilla Yellow-Brown	glossy black interior, exterior brushed
		Bonilla Yellow-Brown	glossy tan surfaces, incised exterior

(continues)

TABLE 3. Changes in ceramic vessel forms at Puerto Escondido, 1600–200 B.C.E. (*Continued*)

Phase and dates	Vessel form	Type name	Surface finish details
Playa (900–200 B.C.E.)	bowls, rounded bases, flaring (diameter 16–30) or vertical (diameter 14–20 cm) walls	Bodega Brown	glossy brown, grooves parallel to rim
		Mairena Red	red bands and zones on polished light brown
		Bancahsa Black	smoothed, shallow grooved or incised designs; post-firing painting on wide everted rims
	vertical or flaring neck jars, tall (3.5–5 cm) and short (1–2 cm) neck (diameter 12–18 cm)	Tiza White	glossy white slip
		Urbe Unslipped: Cine variety	brown smoothed surfaces
	incurved rim bowls (tecomates), some short necks (diameter 16–24 cm)	Rubí Red Painted	red slip on rim and zones of body, zones with pattern burnishing on matte background
		Urbe Unslipped: Cine variety	
	bottles with flaring necks with exterior bolster and separate, narrow spout (2.5 cm dia) on body (diameter 9–14 cm and 20–30 cm)	Rubí Red Painted	
		Bodega Brown	glossy brown, wide zones of grooved lines
		Mairena Red	red slip, wide zones of grooved lines
		Brassavola Red on White	white slip on interior neck, overlapping red slip on rim and exterior body
	flaring bowl with bolstered rim (diameter 8–12 cm and 16–20 cm) basin with bolstered rim (diameter 24 cm and 34 cm) shallow plates (diameter 32 cm)	Bancahsa Black	smoothed, wide zones of grooved lines
		Pirolín Orange Slip	very thin polished cream to orange slip
		Rubí Red Painted	red slipped zones
		Chumba Incised	exterior brushed surface, deep scoring

Note: Forms and named types are listed in order of relative abundance, from most common to least common, within each time period.

In contrast to the incremental change between the first two ceramic complexes, around 1100 B.C.E. the suite of vessel forms and techniques of decoration at Puerto Escondido changed dramatically. Bowls are the most common forms recorded, made with a new clay mixture and firing technology, finished in tones of black, grey, or contrasting black and tan zones, many with deeply carved designs and added postfiring red pigment. Bowls dominate the special deposit we recovered but also are common in other samples. The bowls form a continuous size range that bridges what formerly were medium to large bowl sizes, with few very small or very large bowls. While the overall range looks broader, the vast majority of these bowls fall between 16 and 24 centimeters in mouth diameter. Bottles are made of the same new clay mixture, finished in the same ways. Bottles still have a single central neck, but the neck is wider (12–14 cm) than the narrow spouts of earlier bottles.

Tecomates become uncommon, with smaller ones in the new clay mixture and black or tan surface finish. Most recorded incurved rim bowls at this time are on a coarser brown paste, in a larger size range, unslipped but decorated with pattern-burnished designs. Some have red slip applied prior to their patterned decoration. Greatly outnumbering these larger incurved rim forms are new jar shapes, finished

in the same unslipped or red-slipped, pattern-burnished treatments. These jars fall into two groups, both overlapping in mouth diameter with incurved rim bowls finished the same way.

Apparently, entirely new at this time are very wide, shallow plates, burnished on the interior but left matte or brushed on the exterior. Shallow plates continue to be made from this point on as a basic cooking form. It is not clear whether the examples known from 1100–900 B.C.E. were cooking or serving plates. They are made of the new clay mixture typical of the black, tan, and grey bowls. This clay mixture, used neither for the majority of tecomates nor for jars, is distinguished by a much larger proportion of materials not subject to changes during drying and firing (nonplastics). This higher proportion of nonplastics allowed potters to make thicker vessel walls and would have helped distribute heat evenly.

While cooking in pottery vessels is not confirmed prior to 900 B.C.E., after this date there is better evidence that some vessels were exposed to fires. Shallow plates, the rarest form recorded in our samples, have deeply scored undersides to which carbon adheres. Other uncommon, new vessel forms similarly suggest utilitarian use in food preparation. These include large basins with thickened rims, slipped



FIGURE 2. Bottle from an unidentified site in northern Honduras corresponding to a type produced between 1400 and 1100 B.C.E. at Puerto Escondido. Barraca Brown Burnished type (Ocotillo phase, 1100–900 B.C.E.). Collection of the Instituto Hondureño de Antropología e Historia, Museo de San Pedro Sula, Honduras. (Drawing courtesy of Yolanda Tovar)

red. Some of these likely were set on fires, as we recovered many plain and red body sherds with smoothed interiors and patches of blackening on the exterior.

The most common vessel forms continued to be open bowls. Most were finished in well-smoothed brown, red-on-brown, black, and red slips, or a very rare polished white slip. Some black bowls have wide everted rims with designs painted after firing in fragile white, red, blue, and orange pigments. These bowls form a continuous range of mouth diameter sizes that overlaps with the size range of the bowls of the previous period. Some vertical-walled bowls are taller than they are wide, meriting identification as cylindrical cups. New small- and medium-sized bowls are made of a very distinctive fine cream clay mixture, with a cream or light yellow slip that is highly polished.

The proportion of jars in the sample increases. While incurved rim jars (tecomates) continue to be made, they become less common than jars with vertical or slightly flaring necks. While jars and tecomates continue to be produced with pattern burnished linear designs on unslipped brown- and red-slipped surfaces, proportions of specific design elements and features of surface preparation change. Compared to the immediately preceding period, the range of vessel mouth diameters is smaller, although the number of larger jars in the earlier period was small enough that this apparent change could be a reflection of sample size. What does seem certain is that the incurved rim jars produced are larger than the previous ones, implying that smaller, necked jars are replacing smaller, incurved rim jars in use. Handles are a notable innovation that would have facilitated picking up and moving jars.

While all of these changes in vessel forms are significant, the greatest innovation is in the form of bottles (see Figure 3). Bottles represented in our samples by fragments, including large portions of single vessels, closely correspond to complete bottles in many museum collections from the region attributed to sites dating to the Middle Formative Period. Typically, these bottles have globular bodies that may be shaped as effigies of animals or humans, or simply grooved and channeled in complex forms. Rising from the center of the body is a tall flaring neck, typically with a thick rounded bolster at the rim. Examples recovered at Puerto Escondido have mouth diameters in two distinct size ranges. What is most distinctive of these bottles is the presence of a separate functional spout attached to the body. Spouts have diameters averaging 2 to 2.5 centimeters, much



FIGURE 3. Bottle from an unidentified site in northern Honduras corresponding to a type produced between 900 and 200 B.C.E. at Puerto Escondido. Bodega Burnished type. (Playa phase, 900–200 B.C.E.). Collection of the Instituto Hondureño de Antropología e Historia, Museo de San Pedro Sula, Honduras. (Photograph courtesy of John S. Henderson)

smaller than the central spout on earlier bottles. Some are freestanding; others are connected to the neck by a short "bridge."

The changes in vessel forms noted after 900 B.C.E. must have entailed different habits of eating and drinking. Bowl and bottle forms imply new approaches to serving beverages that prompt us to ask: what beverages were being served in the vessels of this early village? Combining the results of residue analyses (see Table 2) and vessel form changes (see Table 3), we can examine transformations in the ways that cacao was served at the site, leading us to a broader consideration of the role of special foods in everyday life and occasional events in this early village.

CHANGING TASTES IN DRINKING CACAO

The sherd samples we submitted for analysis for possible residues of cacao beverages included examples of bottles and jars from each of the phases in which these were used. We also included for analysis examples of open bowls on the assumption that some of these might have been used to serve cacao beverages. Samples from the Ocotillo phase (1400–1100 B.C.E.) through the Late Formative Chamelecon period (200–450 C.E.) were included in the sample. Because of the small sample size from the earliest assemblage, the Barahona phase (1600–1400 B.C.E.) is not represented, as there were no sherds suitable for destructive analysis available. One jar sherd from the Chamelecon period tested negative for cacao residues. Thus, our discussion centers on the Ocotillo, Chotepe, and Playa phases (ca. 1400–200 B.C.E.).

Part of the spout of a bottle, found in a deposit sandwiched between a level that produced radiocarbon dates of B.C.E. 1190–930 BP (with an intercept at B.C.E. 1030 BP), and sediments with dates of B.C.E. 1290–1020 BP and B.C.E. 1280–1010 BP (with intercepts at B.C.E. 1140 BP and B.C.E. 1130 BP) provided the earliest positive results for theobromine. Thus, we know that a cacao drink that could be served or drunk directly from bottles with spouts of four- to six-centimeter diameters was consumed between 1130 and 1030 B.C.E. Because bottles like this were first produced after 1400 B.C.E., we suspect that it is during the Ocotillo phase (1400–1100 B.C.E.) that people at Puerto Escondido first began producing cacao beverages.

When new bowl forms were introduced after 1100 B.C.E., the new bowls were also used to contain cacao-based food. Eight bowls tested all showed traces of cacao residues. A sherd from one of the showy pattern-burnished jars in use at this time contained some form of cacao as well. Not all tested bowls from this period had contained cacao; one sample of a red-painted bowl was negative for residues of theobromine. Unfortunately, given constraints on sampling for destructive analysis, no bottle necks from this period could be directly tested. The eight bowls that were positive for cacao were of the same surface treatment and clay mixture as bottles from this period. These Chotepe-phase (1100–900 B.C.E.) bottles continued the basic form of a central, single,

vertical neck as earlier bottles, but the width of the opening was substantially larger: 12–14 centimeters instead of the earlier four- to six-centimeter diameters. Some change in preparation, serving, or consumption presumably is implied by these changes in bottle form.

The final sample tested that produced evidence of theobromine was the spout from one of the new bottles introduced after 900 B.C.E. The sample sherd was deposited along with carbon that yielded a radiocarbon date B.C.E. 400–350 BP and B.C.E. 300–220 BP (with one intercept at B.C.E. 380 BP), late in the Middle Formative Playa phase. The form of this bottle, with its separate flaring neck, is closely related to bottles from Middle Formative Belize that previously tested positive for theobromine, and that were the earliest evidence of consumption of cacao until our analyses (Powis et al. 2002).

Cacao beverages consumed by the occupants of the early village who made and used polished, brown-spouted bottles shaped like squash fruit (or cacao pods?) must have been different from the familiar chocolate drink depicted being poured from one vessel to another to raise a froth in Aztec and Classic Maya art (Henderson and Joyce 2006). The narrow spouts of early bottles at Puerto Escondido would not have facilitated moving liquid back and forth as did the open jars and cylinders shown used by Aztec and Maya cacao servers. This is in marked contrast with flaring-necked bottles with a spout on the body introduced later. This Middle Formative bottle form, developed earlier in Honduras than elsewhere in Mesoamerica, does allow for pouring cacao back and forth to raise the diagnostic froth (Powis et al. 2002).

The switch from narrow bottle necks to wider flaring necks implies a difference in the performance of drinking and, especially, of serving cacao beverages. While we have not tested any early bowls yet, we propose that the small open bowls of the Ocotillo period, with their red-on-brown or red-and-white painted bands, were likely recipients for individual servings of alcoholic cacao beverages poured from tall-necked bottles.

The development of new, thicker-walled bowls and bottles after 1100 B.C.E. need not have substantially changed the manner of pouring and drinking. But the wider necks of bottles suggest changed ways of pouring beverages, possibly the beginning of major changes in how cacao beverages were consumed. At the same time, the visual experience of serving and drinking was greatly changed by innovations in surface colors and decoration of bottles and the bowls that contained cacao beverages. Previously, most surface decoration was on vessels that most likely contained shared sources of food, consumed from less showy individual serving containers. After 1100 B.C.E. it is likely food serving forms that have the most vivid, distinctive decoration. Foods consumed traveled from hand to mouth in bowls with deeply carved motifs that stood out vividly red against black or gray backgrounds. The recovery of cacao residue from a pattern-burnished jar, a form whose production started after 1100 B.C.E., suggests that brewing jars

would have been visually prominent in drinking events that featured cacao beverages as well.

After 900 B.C.E., new, flaring-neck bottles were created. Some feature grooved designs that recall the surface features of squashes, but others are executed in the shape of human beings or animals. Along with these new bottles, we see the first vessel forms we might call "cylinder cups." With the tall cup and more open bottle, it becomes possible to imagine a server pouring cacao back and forth to raise froth in individual servings taken by drinkers. In contrast to earlier bowls, on which showy motifs were primarily executed on the exterior walls, vessel rims were used as a primary site for the most varied incised decoration. These designs would have been invisible to anyone other than the person holding the vessel. Exterior walls more commonly carried simple geometric linear designs or concentric incised lines.

The ceramic and residue data, taken together with evidence for changes in the nature of architectural settings at the same time, combine to suggest that over the period from 1400 and 200 B.C.E., drinking became a more visible performance. Vessel forms imply that significant changes in the preparation and consumption of cacao beverages also took place. We have argued that these changes signal a shift from use of a fermented cacao beverage to the more familiar nonalcoholic chocolate drink that spread throughout the world in the 16th and 17th centuries (Henderson and Joyce 2006; Norton 2006). Our argument rests on indirect evidence, as alcohol itself is not detectable in the sherd samples. Today, use of related plants in South America includes the production of fermented drinks (Bletter and Daly 2006; Young 1994:14–15). Fermentation is actually a step in the production of even nonalcoholic chocolate, promoting the conversion of polyphenols in the seeds necessary to reduce their bitterness and develop the chocolate flavor (Young 1994:74–79).

Bottle forms change so that by 900 B.C.E., they would have facilitated the production of ordinary, nonalcoholic chocolate. Additional steps were added to the last-minute preparation of chocolate, including the grinding of seeds to add to the mixture and various techniques to raise foam. These techniques of preparation placed the work of making chocolate firmly in view during the meals at which chocolate was consumed, examples of the kinds of feasts that have been a major preoccupation of archaeologists.

FEASTING AND EVERYDAY MEALS

Brian Hayden (1990, 2001) linked feasting inextricably to emergent sociopolitical complexity in discussions of political strategies available to would-be local leaders in societies in which social stratification was not institutionalized. Feasting, he argued, allowed local leaders to establish obligations from people who would not otherwise have owed emergent leaders anything (Hayden and Gargett 1991). All that is needed for this strategy is a ready supply of foodstuffs and the labor to convert them quickly for consumption at one time. For Hayden and other archaeologists who follow

his lead, kinship obligations ensure a supply of labor, especially if prospective hosts (assumed to be male) had multiple wives. Ecological conditions would determine where the host and his labor force could generate some surplus, convert it into storable form, and hold it for periodic events in which it might have the most impact.

For archaeologists working on early societies of Mexico, the preparation and consumption of alcoholic beverages derived from maize plants as part of feasts has been a particular focus (Blake and Clark 1999; Clark and Blake 1993; Clark and Cheetham 2002; Clark and Gosser 1995; Smalley and Blake 2003). John Hoopes (1995) argues convincingly that alcohol made from palm fruits was made and consumed in early Central America at about the same time. Nor are these the only possible early fermented beverages. In addition to maize-based *chicha*, fermented drinks based on honey, maguey, and possibly fruits were produced later in Mesoamerica (Coe 1994:125–126, 134, 165–166).

We might domesticate the feast a bit by considering when feasts leave off and meals begin. Recent contributions to the feasting literature address the ways that feasts would have contrasted with everyday eating through the use of foods prepared just for the event or foods that normally were too costly (in energy) to obtain. Hayden defined feasts generically as "any sharing between two or more people of special foods (i.e. foods not generally served at daily meals) in a meal for a special purpose or occasion" (2001:28). For Michael Dietler, who defines feasts as "forms of ritual activity that involve the communal consumption of food and drink" (2001:65), it is the perishable nature of food, and implicitly the larger scale of these communal events, that distinguishes feasts from everyday commensality. Dietler (2001:72–73) notes that feasts commonly include fermented beverages, whose production is "quasimagical," that transform the consciousness of participants. While these authors differ markedly in their emphasis, both define feasts as different from something more ordinary. In other words, for every feast there is an implied everyday meal. For food sharing to work as a form of politics, it has to be understood as rooted in and drawing much of its significance from these other meals (Smith 2006:481). Feasts only work to the extent that they play off daily meals as contrast.

FROM MEAL-AS-OBJECT TO MEAL-AS-EVENT

A satisfactory notion of the nonordinary meal therefore implies at least an implicit idea of how an ordinary shared meal works. In a pertinent analysis, Marc Lalonde discerned two different ways we may think about ordinary meals, as objects (a "timely repast" made up of different parts) or as events ("a purposive action . . . which follows a 'script' so as to achieve an intended event . . . a social event that creates meaning for the participants" [1992:70–71]). For Lalonde, both meal-as-object and meal-as-event were grounded in "awareness of the all-encompassing role that food plays within our day-to-day lives," such that "a fundamental

relationship...exists between the meal and our social reality" (1992:71). According to Lalonde, the meal-as-event

places us in a quite different world: one that not only admits the visual dimension of the meal, but one that necessarily involves the integration of taste, smell, touch and hearing with our emotional and cognitive energies. It is a world that is swayed by dynamic presences and, therefore, vulnerable to the vicissitudes of historical existence. *In this world, we forgo the precision of the code for the immediacy and relevancy of the discourse.* Food-as-discourse suggests process, events and actions occurring in time. [1992:75]

To understand the meal-as-event requires consideration of taste perception, the point of articulation of sensory and cognitive faculties, shaped by experiences through which we learn to attend to and discriminate between taste sensations.

The development of taste perception is rooted in familial experiences through which people literally learn to taste in a particular way. Meals involve tastes that we learn to like, and that can be and often are associated with our own intimate group, in contrast with the tastes, however similar, from other hearths. Foods served at feasts united participants because they experienced coordinated taste perception. The great variations that archaeologists have documented in food consumption consequently are the traces of fault lines in identity in ancient societies. These distinctions would have been even more evident to the living people who actually tasted the difference.

Texts written in the 16th century, and others on earlier Classic Maya vessels, repeatedly describe cacao drinks, some definitely fermented, as "fresh" or "refreshing" (Henderson and Joyce 2006; MacLeod and Reents-Budet 1994:115–119; Sahagún 1963:ch. 6, para. 7; Stuart 2006). Fermentation of members of the genus *Theobroma* apparently produced a distinctive taste when contrasted with other fermented beverages. The quality highlighted in 16th-century texts, which were written using the European alphabet and, thus, are easier to gloss than the Classic Maya inscriptions, is clearly freshness versus sourness, perhaps reflecting the effects of continued fermentation that limit the usable life of naturally fermented beverages to a brief period of time (Henderson and Joyce 2006). This is a register of taste relevant for fermented drinks that is not relevant to what we know today as chocolate. It is also a register of taste that is dependent on the ongoing work of making new batches of cacao beer when guests are expected. When cacao beer was replaced by chocolate, a different set of taste distinctions were brought into play. New serving practices that accompanied this new taste in chocolate kept visible the labor of the host group and may have actually enhanced acknowledgment of this work.

DISCUSSION: FROM FEASTING TO CUISINE

What we see happening at Formative Puerto Escondido is a reframing of the public drinking event that moves away from the serving of fermented cacao to a more elaborate

preparation and presentation of nonalcoholic cacao. We suggest that the enhanced performance of serving cacao over time substitutes a more nuanced cacao cuisine for a beverage whose original attraction was likely its intoxicating punch. The elaboration of cacao serving did not just involve pouring cacao back and forth to raise froth. Into the liquid were added ground seeds and even flowers. Various frothing agents may also have been added to promote the creation of foam. Foam forms naturally on the surface of fermenting beverages. We speculate that the preference for foam in nonalcoholic cacao may itself be part of a persistent taste preference reproduced through artifice in nonalcoholic cacao drinks.

The transition from chocolate beer to cacao paralleled a change in settings of drinking at Puerto Escondido. For most of the Early and Middle Formative Periods (dating ca. 1600–800 B.C.E.), the contexts we have excavated were likely houses and house yards. Starting around 900 B.C.E., residential buildings were supplemented and in some cases replaced by larger stepped platforms (Joyce 2004, in press; Joyce and Henderson 2001). We do not know if the social scale of events taking place at the site changed with the innovation of new architectural settings. But these new settings did offer the potential for making actions more visible that previously would have been carried out within or adjacent to houses facing enclosed house yards.

The transformation we envisage did not likely happen overnight but, rather, was the product of the creation of a cacao cuisine on the part of hosting factions interested in distinguishing the events they sponsored. Feasts build solidarity as much as they make hierarchy (Dietler 2001:76–78). Social groups, rather than the individuals contemporary researchers credit as hosts, had opportunities to build social standing through provisioning feasts. Making brewing jars more showy, something that predates the development of bottles that facilitate cacao frothing, is a step through which social credit for the labor of brewing, invisible as it precedes the arrival of guests, could be foregrounded during the meal-as-event. The last-minute grinding and addition of the converted seeds of the cacao pod, recovered by straining the fermented liquid that comes from the breakdown of the pulp, would have been another step through which hosts could make the labor of production of feast drinks more visible.

For our archaeological models of the social role of feasting to be truly powerful, we suggest that they need to address the actual question of what was prepared, how it was served, and who was credited with the success of the feast. We have tried to begin to do this for early Puerto Escondido. There remain many questions about these meals that need to be addressed. We concur with Monica Smith (2006) that food preferences need to be taken seriously by archaeologists. We suspect that the decision to ferment cacao rather than any of a number of other possible plants reflected the emergence of distinctive taste preferences and may also have had the kind of symbolic and ideological dimensions Smith can document for rice in India.

We are especially interested in the way that the foregrounding of processes of brewing, of adding condiments, and of serving cacao drinks may have created arenas in which producers could maintain a claim to the credit that accrued from hosting cacao drinking feasts. If other instances of brewing in the American tropics are any guide, these producers quite possibly were women (see also Bowser 2000, 2004; Hendon 2003; March 1998). Feasts and everyday meals appeal to the same culturally formed tastes, and in most ancient societies they draw on the same range of plants and animals. What distinguishes a feast, what makes it special, is not simply the amount of food, the diversity of foodstuffs, or the provision of things normally not consumed. It is also the experience of being the consumer of dishes created through extra labor, with special skill, and served with some degree of distinction. While some of the tastes that appeal to human beings may be biologically innate, even something as potentially intoxicating as a drinking party may involve the use of special drinking vessels that contribute to turning a meal into an event, a feast into cuisine, and food and work into social relations.

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NOTE

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Taste the Traditions: Crabs, Crab Cakes, and the Chesapeake Bay Blue Crab Fishery

ABSTRACT For centuries, people in the Chesapeake Bay watershed have harvested and consumed blue crabs (*Callinectes sapidus*). Historically, the production of the crabs was intimately connected to the work and knowledge of commercial watermen. In recent years, declining crab populations have resulted in an increased local use of pasteurized crab meat imported from Asia and South America. Also emerging is an ecological discourse that emphasizes pollution reduction to save crabs to eat. In this article, I analyze these production and consumption changes for Chesapeake Bay blue crabs within a broad-ranging framework of cultural models and environmental anthropology. Explicit textual information increasingly suggests that the cultural model of Chesapeake blue crabs as food is one of crab cakes made (with imported crab meat) in the "local tradition" and, to a lesser degree so far, is an emerging discourse presenting blue crabs as a culinary poster child for antipollution campaigns. [Keywords: blue crabs, Chesapeake Bay, cultural models, environmental anthropology]

New England has its clams, Louisiana its shrimp, Texas its beef barbecue. And in the mid-Atlantic, we have our crab. More than any single foodstuff, the Chesapeake Bay blue crab has come to define this region. [Kliman 2005]

FOR MOST OF HUMAN HISTORY, the producers and consumers of food have been closely connected: foods captured, grown, or raised were eaten by producers themselves or by proximate consumers through kinship or trade connections. In recent years, however, complex processes of modernization and globalization have extended the reach of locally produced foods to distant and diverse populations of consumers. Understandably, today's food consumers cannot be expected to have significant understandings of the actual labor, knowledge, capital, and organizational structures used in production of the foods they consume. Nonetheless, local and historically situated food production remains important to many, who seek more production information on the foods they consume as part of a sociocultural and political effort to support traditional or local cultural practices, community-based production, or a food industry that considers environmental needs.

In this article, I present a case study of recent changes in food production and consumption. My case study focuses on one type of seafood from one particular region: blue crabs from the Chesapeake Bay. For centuries, the harvest

and consumption of blue crabs (*Callinectes sapidus*) have supported coastal communities and connected people to the Chesapeake Bay. For consumers, it was the blue crab's role as a premier regional food that connected them to the bay. The Chesapeake Bay blue crab is widely considered one of the best-tasting crabs in the world. However, Chesapeake blue crabs are not just good to eat; historically, consumers, as part of their eating experience, have also valued and sought information on the craft and knowledge required of bay watermen (commercial fishermen) to capture, process, and market crabs. Eating Chesapeake crabs was a critical medium that connected locals and tourists to the Chesapeake Bay through the work and skill of the watermen who harvested the crabs. For more than a century, watermen and their families have used simple technologies with great skill and craft to catch crabs for local and distant consumers.

However, in recent years, a combination of factors has ushered in a radical change in the Chesapeake Bay blue crab fishery, which has changed the close relationship between watermen as harvesters or producers of crabs and consumers of crabs. These factors include increased marketing of crabs in the form of crab cakes, a decrease in abundance of Chesapeake blue crabs and a decline in the size of the fishery, a dramatic rise in the import of foreign crab meat, and decline in the overall ecological health of the bay itself. All of these factors are important. However, in terms of altering the close connection (real and imagined) between Chesapeake Bay

watermen, bay crabs, and the local eating of crabs, it is the importation of foreign crab meat from Asia and South America that has had the greatest impact. For local and domestic consumers to accept eating "foreign crabs" as a Chesapeake crab-eating experience, it has been necessary to resituate the production of crabs away from harvesters and the bay itself and toward food traditions for preparing crabs to eat.

Interestingly, and very recently, there are signs of an emerging movement and discourse that, for ecological reasons, seeks to reconnect consumers of crabs to the Chesapeake Bay. As concerns have grown about the ecological health of the Chesapeake Bay, and as the watershed population continues to grow and place pressures on the bay's ecosystem, environmental campaigns are emerging to connect and engage consumers with the bay. The emerging discursive message to consumers of crab is to not pollute the bay but to "save the bay" so we can eat its crabs. This rational discussion is based on scientific studies that link non-point source pollution to a decline in water quality and habitat in the bay: for example, damage to submerged aquatic vegetation (sea grass), which provides critical habitat for young crabs.

In this article, I apply a cultural model approach (cf. Quinn and Holland 1987; Strauss and Quinn 1997) to identify the cultural and environmental knowledge that is required and generated as local, regional, and global processes redefine food consumers' connection to Chesapeake Bay blue crabs. I am particularly interested in describing how and why implicit cultural understandings of food change and in exploring the significance of such changes for food producers and the ecosystems on which these producers depend. The findings I present in this article contribute to ongoing cultural model, environmental, and fishery research on the Chesapeake Bay (cf. Paolisso 2002, 2006; Paolisso and Chambers 2001; Paolisso et al. 2006; Paolisso and Maloney 2000).

The findings presented here specifically extend previous cultural model research on blue crabs as a natural resource and fishery to a focus on blue crabs as food (Paolisso 2002). Although I discuss all forms of crabs as food, I focus my attention on the crab cakes, made from meat picked from steamed hard crabs. Although crab cakes are perceived by most consumers as the traditional seafood of the Chesapeake Bay, the vast majority of crab cakes consumed today in the watershed are made with imported crab meat. In this article, I explore what implicit cultural knowledge must be present to sustain a traditional connection to the bay even when the crab cakes consumed are made with imported crab meat, and why even explicit programs to use crabs as food to connect the public to the bay do not include the fishery.

I begin with a discussion of the theoretical approach of cultural models and some background information on my use of a cultural model approach to study explicit (stated, explained) and implicit (tacitly assumed) cultural knowledge about the Chesapeake Bay and its fisheries. I follow with descriptive and ethnographic information on the blue crab, its fishery, and the different ways blue crabs are eaten.

Next, I discuss a significant development in the production and consumption of blue crabs in the Chesapeake Bay watershed: the importation of foreign crab meat. With this background information present, I then turn to a discussion of how the production of crab cakes, made with foreign crab meat, is discursively connected to local restaurant and retail operations, with the twofold result of "localizing" imported crab meat and replacing traditional producers—the watermen—with traditions of local food preparation and hospitality. I then follow with a discussion of a program and emerging discourse that attempts to reconnect people to the Chesapeake Bay blue crab as food (thus competing with the imported crab meat discourse). This discourse argues that we should not pollute the bay, with the resulting benefit being that then we will have more crabs to eat. However, again local harvesters and the fishery are excluded from this discourse. I conclude with some observations on the relevance of this focus on blue crabs as food for broader cultural model and environmental anthropology research.

CULTURAL MODELS, FISHERIES, AND BLUE CRABS

Since about 2000, I have been working with students and colleagues of the Department of Anthropology, University of Maryland at College Park, to apply anthropology to the study of Chesapeake blue crab and oyster fisheries (cf. Greer 2003; Paolisso 2006; Paolisso et al. 2006). Our fishery anthropology research on the Chesapeake attempts to build on and contribute to previous studies of commercial fishing communities, a rich and productive area of anthropological scholarship and practice since at least the 1920s (McCay 2001). Ethnographies of the traditional knowledge and practices fishers use to harvest, process, and market marine resources have been central to this scholarship (for reviews, see Acheson 1981 and McCay 2001). In response to a declining marine resource base worldwide, this focus on fisher knowledge and practices has evolved in recent years to include an interest in how fisher knowledge complements (or does not) science-based assessments of fish stocks (cf. Dobbs 2000; Jentoft and McCay 1995; McCay 1988; Pomeroy and Beck 1999).

However, we are also bringing to this fishery research a very strong interest in cognitive anthropology applied to environmental issues. In particular, I use a cultural model approach to understand not only explicit cultural knowledge and values about Chesapeake fisheries but also the tacit and implicit knowledge applied to the blue crab and oyster fisheries. Much of commercial fisher knowledge is experience based and tacit, which creates challenges in translating this knowledge to fishery scientists, managers, policymakers, and the public. A fundamental goal of our Chesapeake Bay fishery work is to elicit and compare this fisher knowledge with implicit and explicit knowledge of other fishery stakeholder groups, seafood processors, scientists, resource managers, recreational fishers, environmentalists, and the public. More generally, our use of cultural models for fishery research is embedded within a broader cognitive focus

on environment in anthropology (cf. Kempton 2001; Ross 2004).

Generally speaking, cultural models are shared implicit and tacit understandings about how the world works. They are cognitive frameworks used by individuals to process and organize information, make decisions, and guide behavior. In an oft-quoted definition, Naomi Quinn and Dorothy Holland describe cultural models as "presupposed, taken-for-granted models of the world that are widely shared by members of a society and that play an enormous role in their understanding of that world and their behavior in it" (Quinn and Holland 1987:4). Cultural models are thus representations of "that knowledge individuals need to know to behave in appropriate ways," vis-à-vis the norms and practices of their group (Goodenough 1957).

Why use this cognitive approach of cultural models to conduct cultural analysis of a fishery or, in the present case study, the seafood consumed? First, a fundamental assumption of cultural modeling is that when individuals engage with the world, they cannot possibly attend to it in all of its complexity. Consequently, individuals must use simplified cognitive models to reason with or calculate by mentally manipulating the parts of the model to solve problems or interpret situations or events (D'Andrade 1995). Second, time is often of the essence, with an individual needing to make a decision, understand a situation, or provide verbal or behavioral responses with little or no delay. Thus, the cultural model used should contain essential or primary cultural knowledge that forms or reinforces core cultural beliefs and values among a group who shares that cultural model. Third, the cultural model identified helps explain behavior and cultural knowledge and values in related domains, both among group members and in the views and behaviors of group members toward other groups.

Cognitively, cultural models exist in nested hierarchies in the mind. The models are composed of interconnected building blocks called *schemas*. Schemas are cognitive frames with default values or open slots that can be variously filled with appropriate specifics (D'Andrade 1995). Schemas may consist of images (e.g., blue crabs and crab cakes) or propositions (e.g., commercial fishing needs to be regulated [or not], or eating seafood locally is connected to and supports local fishermen). Cultural models can be visualized as storylike chains of events that unfold in simplified words. Examples of lower-level schemas are leaving the dock, sailing toward a row of crab pots, retrieving crab pots, culling crabs, or returning crab pot to water. These are the building blocks of a simple cultural model of commercial crab potting. This simple model is nested within a more complex model of commercial crabbing, which is nested within a higher order cultural model of being a waterman.

An effective approach to identifying underlying cultural models of knowledge is to focus on explanations offered as part of natural discourse or text on the topic or domain at hand (D'Andrade 1995; Quinn and Holland 1987). In offering explanations for why something is the way it is, individuals often present their understanding of a situation in terms of propositions and theories. A *proposition*

is a statement asserting or proposing a state of affairs (Shore 1996). Following Roy D'Andrade, "a proposition is the sense of something said about something (typically a sentence) and involves the integration of a relatively small number of separate schemas into a more complex schema" (1995:190). Propositions are culturally codified as slogans, clichés, wise words, maxims, and other formulaic statements. A *theory* is an interrelated set of propositions that describes the nature of some phenomena. Analyzing propositions and theories is an effective approach used by cognitive anthropologists to identify underlying cultural models.

We also look for patterns in metaphors, speech, texts, contexts in which keywords and phrases are used, how ideas are linked together, and unstated assumptions and inferences of what the listener should know as indicators of underlying cultural models (Bernard and Ryan 1998; D'Andrade 1995; Quinn 2005). Individually and combined, these linguistic and paralinguistic pursuits produce rich and textured insights into the implicit knowledge that stakeholders "just know" about, for example, a fishery or its seafood (Quinn 2005).

CHESAPEAKE BAY BLUE CRABS

For centuries, blue crabs (*Callinectes sapidus*) have been one of the most abundant species in the Chesapeake Bay (see Figure 1). Habitats of blue crabs, however, range far and beyond the Chesapeake Bay to include estuaries, lagoons, and coastal habitats of the Western Atlantic, Gulf of Mexico, and the Caribbean (Williams 1984). The blue crab is one of 14 swimming crab species in the genus *Callinectes* (Miller et al. 2005).

All crabs harvested from the Chesapeake are *C. sapidus*. The Chesapeake Bay has been a particularly good habitat for blue crabs: favorable water quality (e.g., salinity,

The Chesapeake Bay Watershed

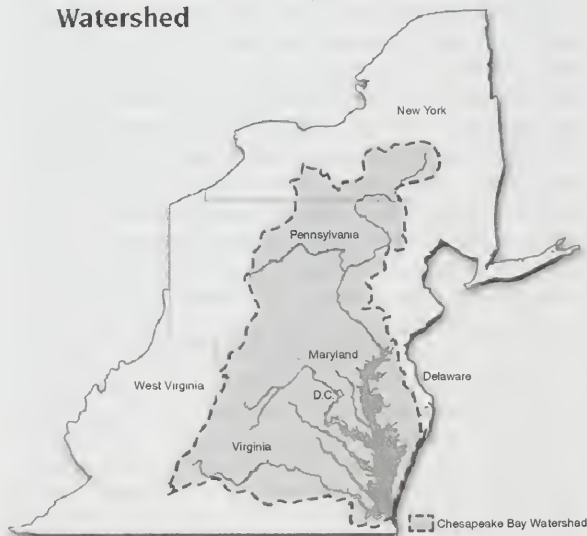


FIGURE 1. The Chesapeake Bay watershed.

temperature, and dissolved oxygen levels); varied bottom structure (e.g., oyster reefs, deep troughs, and shallows of sand or mud); sufficient nutrients and submerged aquatic vegetation; and strong tides and water circulation (Miller et al. 2005).

Blue crabs are benthic (bottom-dwelling), opportunistic predators and scavengers (Eggleston et al. 1992). Their diets may include a wide range of taxa including bivalves, crustacea, and fish (Hines et al. 1990; Mansour and Lipcius 1991). Blue crabs may be keystone predators in the Chesapeake because they play a dominant role in structuring benthic communities.

Blue crabs are successful predators because of, in large part, their excellent sideways swimming capabilities. Blue crabs can propel themselves rapidly through the water using a pair of powerful rear appendages that progressively flatten to form paddles at the end. Also, the crab's shallow, compressed body with tapered ends is designed for speed. The blue crab can scamper across the sea floor, using the remaining four pairs of leg appendages. Furthermore, the crab's excellent eyesight allows it to quickly locate both prey and predators. Combined, whether swimming sideways or scurrying across the bottom, the blue crab is a formidable hunter whose arsenal of two powerful front claws is used for both defense and offense.

Crabs are by nature solitary animals for most of the time. When they do encounter others of their own kind, they will either flee or fight aggressively. In the Chesapeake, male blue crabs occupy regions of the upper bay and upper reaches of the tributaries, where salinity levels are lower. Females, however, prefer the lower bay and lower reaches of the tributaries, which are higher salinity regions (Hines et al. 1987).

It is the mating that brings males and females together. Blue crabs mature at around 12–18 months of age and typically live up to three years. They grow by molting, or shedding their shells. In the Chesapeake, mating occurs from May to October in lower and midbay habitats where salinity preferences for males and females overlap. The male fertilizes the female while she is in the soft shell phase during her last molt preceding maturity. The fertilized females develop an orange, external egg mass beneath their domed aprons. The egg mass may contain 750,000–8,000,000 eggs, depending on the size of the crab (Prager et al. 1990). Mature females release larvae in high-salinity water near the mouth of the Chesapeake Bay (Van Engel 1958). The larvae are transported by current to the continental shelf, where they develop through seven or eight stages over a period of about 30–45 days. Postlarvae migrate back into the bay where they undergo physiological changes in preparation for their first molt (Lipcius et al. 1990). Late premolt postlarvae use beds of submerged aquatic vegetation in the lower bay as nursery areas (Orth and van Montfrans 1987).

BLUE CRAB FISHERY

For more than a century, the blue crab has supported a commercial fishery in the Chesapeake Bay. In the 1950s, for example, blue crabs harvested from the Chesapeake Bay

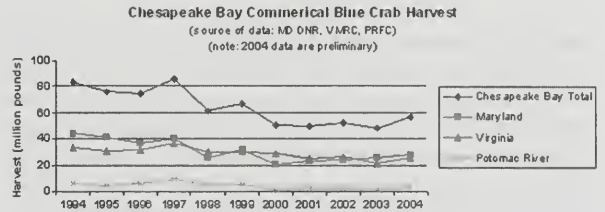


FIGURE 2. Chesapeake Bay commercial blue crab harvest.

and its tributaries represented almost 80 percent of national landings (Miller et al. 2005). However, blue crab commercial harvests from the Chesapeake have been in long-term decline, particularly over the last decade (see Figure 2). A combination of factors is responsible for this decline: natural cycles in crab fecundity and mortality, fishing pressure, loss of habitat, and predation by other species. Still, even at these reduced harvest levels, the Chesapeake Bay remains the largest single source of blue crabs in the nation. In 2003, the Chesapeake Bay provided approximately 30 percent of national landings (Miller et al. 2005).¹

As the harvest and abundance levels have decreased, the economic importance of the blue crab harvest to Chesapeake watermen and local seafood processors has increased, in part because of the absence today of alternative bay fisheries such as the oyster. During the 1990s, the dockside value of crab harvests for the entire bay averaged more than \$50 million a year. In 1999, blue crab harvests accounted, for example, for over 60 percent (or \$38.9 million) of Maryland commercial watermen's fishing income (Maryland Sea Grant 2001). Economically, there is no other species harvested from the Chesapeake Bay that today provides more income or jobs for watermen, seafood processors, and other service and food workers. In addition to this commercial value, recreational crabbing (e.g., string lines baited with chicken, collapsible traps, and trotlines) is a widespread summertime tradition throughout the region.

BLUE CRABS AS FOOD

It [the blue crab] is very well named. *Callinectes* is Greek for beautiful swimmer. *Sapidus*, of course, means tasty or savory in Latin. [Warner 1994]

For centuries, the harvest and consumption of blue crabs have connected local peoples to the Chesapeake Bay. Although the English word *Chesapeake* is derived from *Chesiopec*, an Algonquian word often translated as the "great shellfish bay," today the principal food associated with the Chesapeake Bay is the blue crab and not the Eastern oyster (*Crassostrea virginica*), which has dwindled in abundance as a result of disease, declining habitat, and harvesting (National Research Council 2004). Although the current abundance and harvests of blue crabs from the Chesapeake Bay are also much lower than in previous decades, the consumption of "bay crabs" remains an important component of the region's economy and a tradition with strong cultural significance.

Blue crabs can be eaten as hard crabs, soft crabs, or crab cakes. Each "food form" has its passionate supporters, many of whom do not readily switch between forms. Some (like me) prefer to eat steamed hard crabs covered with spicy Old Bay seasoning, accompanied by summer corn, cold beer, and good friends. Others enjoy eating whole a soft-shelled crab, either as a sandwich (on white bread, of course) or on a platter with fries and coleslaw. Still others order crab cakes: fried or broiled patties of seasoned crab meat picked from steamed hard crabs.

Any understanding of blue crabs' value as food must begin with a fundamental distinction: hard crabs versus soft crabs. Many first-time or infrequent consumers of crabs are surprised to learn that the blue crabs they encounter as hard-shelled crabs and those as soft-shelled crabs are, in fact, the same crab. This is because blue crabs are one of the few animals harvested and eaten in two stages of their life cycle: when the exoskeleton, or shell, is hard and also when it is soft. Blue crabs molt or "shed" their exoskeleton to grow, and over the average three-four year lifespan, blue crabs will molt between 15 and 22 times. Just after molting, the blue crab's entire body is soft. It is at this time that the blue crab is very vulnerable to predation from fish. Commercial watermen try to catch soft crabs just before they molt. These "peeler" crabs are either captured in dredges pulled through shallow, grassy areas or the crabs enter watermen's crab pots in search of shelter from predation. The captured peeler crabs are then transported to a crab shanty where they are placed in large, rectangular trays called floats, which have water running through them. The crabs are monitored closely by watermen and their families. As soon as the crab sheds, it is very soft and motionless. It is then removed to a separate tray for its own protection from other crabs and allowed to harden up a little, a process that takes a few hours. Once the crab has "refilled" itself, it is removed and sold either live or cleaned. Although all crabs shed their shells to grow, only a few species of crab can actually be eaten in this form.

Soft-shell crabs are a favorite seafood delicacy among those living in the United States. Soft crabs are eaten in their shells—legs, claws, and all—with only the eyes, mouthparts, and gills removed. They are a delicacy, usually served broiled, sautéed, or fried. Soft-shell crab is shipped live but typically marketed as fresh. Soft-shell crab can also be cleaned (dressed) and then frozen for consumption later.²

Hard Crabs

For many, eating hot, steamed hard crabs is the epitome of the crab-eating experience. For most of its life, the blue crab's outer shell is hard. Commercial watermen catch these hard crabs by luring them into a baited crab pot or by scooping them off a baited line called a trotline. For the Chesapeake Bay region, male hard crabs are called *jimmies* and mature female crabs are called *sooks*. Jimmies are generally larger and meatier and are therefore more desirable for eating whole, either steamed or boiled. Sooks, which are also eaten whole, are more frequently sold to

commercial processing plants to be picked and packaged as fresh crabmeat. Hard crabs are always sold alive for eventual steaming at restaurants, festivals, family gatherings, and processing plants.

It is generally accepted that the Chesapeake Bay produces an expensive, high-quality blue crab. The bay's colder water temperature produces a blue crab high in flavorful fat. Carolina blue crabs are considered second to those from Maryland, whereas Louisiana provides options for price-sensitive customers who like a larger crab.

Because no machine matches the dexterity of the human hand, most crab meat continues to be extracted by manual labor. Once dominated by African American women, the ranks of pickers are increasingly filled by Mexican immigrants. Picking houses tend to come online near the end of the summer season when crabs are plentiful, fat, and cheaper. An experienced crab picker can produce about 2.25 ounces of meat from each pound of live blue crabs. This is approximately a 14 percent yield. The actual yield depends on the size of the individual crab and the experience of the crab picker.

Commonly, crabmeat is graded into lump, backfin, special, or claw. In descending order of quality, the meat of the blue crab is graded as "jumbo lump" or "backfin lump," comprising whole pieces of white meat from the body muscles that power the crab's swimming legs; "regular," which consists of smaller pieces of whole meat from the body; "special," a mixture of backfin and regular; and "claw," which has a brownish-beige color. The higher the grade, the sweeter is the meat and the higher the cost.

There is a cultural lore around eating Chesapeake Bay steamed hard crabs that has many elements connecting the consumer to the watermen and ultimately to the bay. First, a certain amount of skill is required to "dissect" the hard crab to pick out the meat. Generally speaking, the picking of crab meat is dictated by certain anatomical features of the crab itself. However, a valued and meaningful part of the crab-eating process is the recognition of small variations in approaches and differences in skill levels exhibited when a group of friends sit down to a table piled high with hot, steamed crabs. The conversation will almost certainly include reference to the source of the crabs: at a restaurant, even those not from the region will often inquire as to whether the crabs are local, and the response is often very specific, noting which subregion of the bay the crabs come from. For local consumers more familiar with eating steamed hard crabs, the questions about the source can become quite detailed, including information on the sex, size, method of capture, and the watermen who caught the crabs.

This cultural lore and practice around eating steamed hard crabs becomes particularly rich and localized if the crabs are purchased for steaming and consumption at home. Many of the consumers for home-steamed crabs have particular crab shanties from which they purchase their crabs. These crab shanties can be retail outlets, where crabs are brought in and sold steamed or alive to customers. Or these crab shanties can be large sheds where watermen store gear, process soft crabs, and refrigerate their catch. It is this

latter case that the connection between producer-harvester of crabs and the consumer is most pronounced, and this was the traditional producer–consumer relationship. The consumer has some “insider knowledge” that connects him or her to a particular waterman, who inevitably (real or imagined) “has the best crabs and good prices.” Embedded in this relationship is the skill and experience of the waterman crabber, who cannot always guarantee he will have crabs. So, there is always some uncertainty for consumer about whether she or he will have crabs to eat, which can cause anxiety if guests are invited to a backyard crab feast. Thus, the consumer must also demonstrate skills in contacting, negotiating, and maintaining a relationship with the producer to increase his or her chances that she or he will be able to get live crabs in a timely manner for hungry guests. In a subtle way, the successful consumer of steamed crabs outside the restaurant and retail avenues receives recognition from others who partake of the crab feast for his or her skills and connections in “finding crabs.” Historically, this closer relationship between watermen as crabbers and local consumers was the principal avenue for crab consumption in the region. Granted the distance of this relationship varied, as crabs were transported throughout the region, but what was consistent was close association of crabs with a particular subregion of the bay or a specific waterman or regional group of watermen (e.g., Smith Island or Deal Island watermen).

Finally, some of these regions and groups of watermen became known for their ability to hard crab, and this increased the cultural and culinary value of their crabs. Chesapeake Bay watermen do not believe that they will ever know all there is to know about catching blue crabs. For watermen, the movement and abundance of the blue crab is to a significant degree not knowable, something they feel is an important consideration in fishery management (Paolisso 2002). Still, some watermen are, for a combination of reasons that are difficult for watermen to explain, better hard crabbers. Although all watermen will catch hard crabs, some watermen will catch more and “prettier” crabs, meaning larger, fatter, and ultimately tastier crabs. Consumers of hard crabs are aware of these subtle production differences and work to find or create relationships with watermen or hard crab retailers that “have the best crabs.”

Crab Cakes

At its most basic level, a crab cake is a sautéed, fried, or broiled patty of crabmeat. Until recently, most crab cakes were either sautéed in small amounts of butter or oil or deep fried. Broiling of crab cakes has become more popular recently, particularly among more health-conscious diners. Not surprisingly, some long-time consumers of crab cakes argue that sautéed or fried crab cakes taste better, because the caramelized crusts create a taste contrast with the crab’s sweet meat and also help seal in moisture. All agree, however, that the crab cake should not be cooked for too long, because this is basically a rewarming of crab meat already steamed or boiled at the time of picking.

The practice of making minced meat cakes or patties with seafood has a long history. Minces mixed with bread, spices, and other fillers came about for two reasons: taste and economy. Through family recipes in *Maryland’s Way* (1963), a regional cookbook published by the Hammond-Harwood House Association in Annapolis, one can trace the making of crab cakes back to the early part of the 19th century. The phrase *crab cake* appears to be a 20th-century appellation. The term dates in print to 1930s in Crosby Gaige’s *New York World’s Fair Cook Book* (1939), where they are called “Baltimore crab cakes” (Mariani 1999:103).

Traditionally, crab cakes were mainly a home meal. Interviews with watermen and their families on Maryland’s Eastern Shore of the Chesapeake include accounts of crab seasons (April–December) when it was not uncommon for families to get together for a social evening of picking steamed crabs and making crab cakes to freeze. The goal was to freeze enough crab cakes to last through the winter. This same manner of local crab cake preparation is still used today for church and community social events, including fundraisers and festivals. Travelers throughout the Chesapeake region will encounter crab cakes made according to a particular local recipe, whether it belongs to a particular person (Joe’s or Judy’s crab cakes) or to a subregion (Baltimore or Thomas Point or James River crab cakes).

Today, crab cakes can be found in most supermarkets and seafood restaurants through the Chesapeake region and beyond. In supermarkets and seafood retailers, the crab cakes sold are most often made from either fresh or pasteurized crab meat. Often, labeling will also inform the consumer of the grade of crabmeat used in the cakes (lump, regular, special, or claws). Increasingly, frozen crab cakes can be found in the large retail stores (e.g., Costco), supermarkets (e.g., Safeway), and of course via the Internet.

A NEW CRAB IN THE REGION

If you order a crab cake at a local restaurant, you might assume you’re getting a product from the Eastern Shore [of the Chesapeake Bay]. Chances are, it’s from the Far Eastern Shore. [Kliman 2005]

There is nothing better than fresh Maryland crabmeat. It’s the premier crabmeat in the world—it’s a great product. The problem is, there’s just not enough of it anymore. [Steve Phillips, CEO, Phillips Foods; see Kliman 2005]

In the mid-1990s, a new crab arrived to the Chesapeake Bay in the form of pasteurized crabmeat from Asia and Latin America (see Figure 3).³ Although there had been imports of crabs (e.g., Dungeness, King, and Snow crabs) prior to the mid-1990s, this crabmeat was fresh, frozen, or shelf-stable. In the latter case, additives and high heat are applied to picked crabmeat to kill any pathogens that could cause spoiling. The cooked crab meat is then canned, allowing it to be stored without refrigeration. Although this process greatly reduces the risk of food contamination and extends shelf life, it also significantly decreases the quality of the taste (think of canned tuna). These three

Crabmeat in ATC Thru Baltimore Customs District

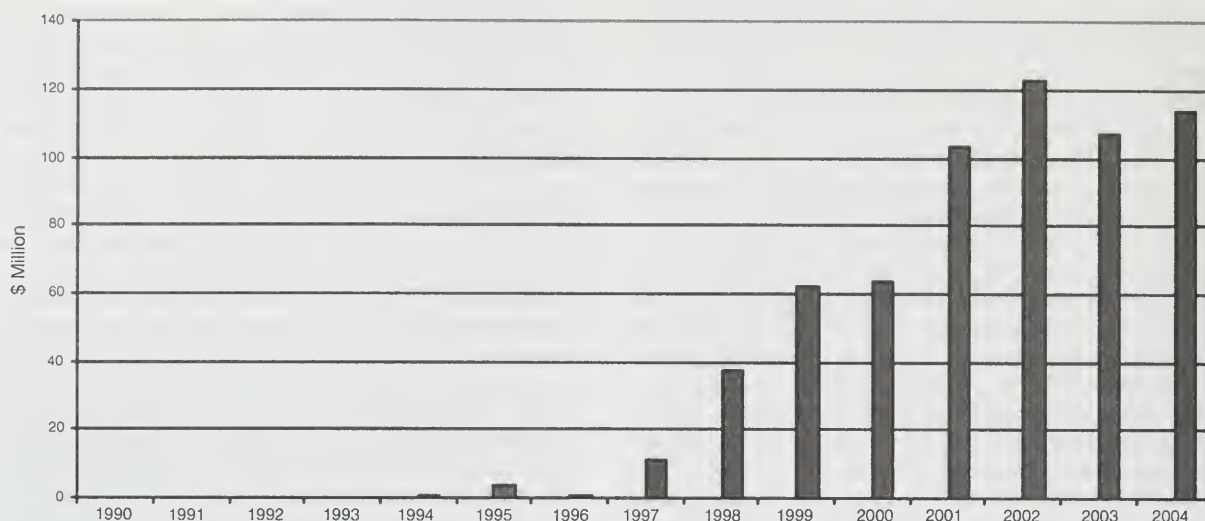


FIGURE 3. Crabmeat in airtight containers (ATCs) through Baltimore Customs District.

forms of imported crab meat did not seriously compete with the market for fresh crabmeat from steamed Chesapeake Bay hard crabs.

Three characteristics of this new imported pasteurized crabmeat are significant in terms of its ability to compete with domestic fresh crabmeat. First, there is widespread agreement that pasteurized crabmeat does not taste as good as fresh crab meat. However, the process of slower heating and slower cooling involved in the pasteurization process, compared to the shelf-stable preparation process, helps the meat retain its sweetness and close-to-fresh texture and taste qualities. According to one executive of Phillips Foods, the largest pasteurized crab importer in the region, the pasteurized crab “has about 92 percent of the sensory characteristics of fresh crab” (Kliman 2005). Phillips, a regional name in seafood, is seen as the principal driver behind the push to import high-quality, pasteurized crab meat. As described more below, this local connection to the region and traditional crab cakes has been an essential component of their marketing of imported crab meat.

A second characteristic is the practical and economic benefits of pasteurization itself. If refrigerated and unopened, pasteurized crab meat can last for up to 18 months (compared to three to five days for fresh crab meat). Restaurants throughout the region have stopped using fresh crab meat for their crab cakes. The business thinking is straightforward: although the pasteurized crab meat may not taste as good as fresh Chesapeake crab meat, when mixed with crab cake fillers most customers will not notice a difference. Also, pasteurized crab meat’s longer shelf-life helps restaurants keep a steady supply of crab meat, without having to worry about spoilage. Imported crabmeat is also less expensive, which is no small consideration to restaurant management.

Finally, the upsurge in imported, pasteurized crabmeat was made possible by an expansion of the range and types of crab used. The increase in imported crabmeat includes meat from both blue crabs and the blue swimming crabs. Biologically, the Atlantic blue crab and the Asian swimming crab (*Portunus pelagicus*), are both swimming crabs, and they belong to the same crab family, *Portunidae*. The blue swimming crab looks similar to the blue crab, but it is usually a little larger, and its shell is covered with spots. The lumps of meat from swimming crab are larger and easier to pick, thus reducing the amount of shell in the crab meat.

For wholesalers, retailers, and restaurants, the business advantages of using imported pasteurized crabmeat are hard to deny: steady supply, good product, and a growing market for crab cakes, which in 2000, according to a trade industry survey, moved onto the list of top ten appetizers for the first time (U.S. International Trade Commission 2000). According to *Restaurants and Institutions*, crab cakes are the seventh most popular appetizer on restaurant menus across the country this year (see Kliman 2005).

CHESAPEAKE CRAB PRODUCTION AS PREPARATION IN THE MARYLAND STYLE

Maryland-style [crab cake]! The only thing Maryland about it is the company [Phillips] that’s selling it. [Maryland crab processor and restaurant owner; see Kliman 2005]

How do you sell imported crab meat to consumers with a strong allegiance to regional seafood connected to a local fishery and productive estuary? It certainly helps that local supply has decreased, and that local crabs are readily available only from May to October. Nevertheless, this lack of supply is a necessary condition but not a sufficient

explanation for the increase in consumption of crab cakes, locally and beyond.

What also must happen is that the imported needs to be localized, given regional flavor and heritage, something that makes it distinct to the region for both long-term residents and tourists. Discursively, the “regionalizing of the foreign” is accomplished by de-emphasizing the actual harvester of crabs (commercial watermen) and the harvesting and shifting to the next step in the production process: the preparation of crab cakes. This discursive shift removes information on harvesters and harvesting from the consumer, and the added value of that information for the consumer, and replaces it with a new discursive baseline for situating the crab food locally. Thus, the fact that the most important component of the product is imported does not conflict with the consumer’s desire to have a Chesapeake experience, because the product they are consuming is made in, for example, the “Maryland style” or in the “authentic Chesapeake Bay way.” For all but the most knowledgeable seafood consumers in the region, there will be an assumption that the crab cakes consumed are from the Chesapeake Bay. Of course, it is helpful that today most consumers of crab cakes, both locally and beyond, have very little direct contact with Chesapeake Bay itself, let alone the bay’s watermen.

Today, the vast majority of restaurants serving crab cakes in the Chesapeake Bay watershed use imported crab meat.⁴ Most of the crab meat sold in supermarkets is imported crab, packaged in a way that the average consumer would assume that the meat is from the Chesapeake, Maryland, or Virginia, in part because of the traditional recipe or the logo on the container. In the Chesapeake Bay watershed and throughout the Mid-Atlantic states, one seafood importer and restaurant chain best exemplifies the use of imported crabs and the regionalization of this crab through links to a historical and local processing and retail base: Phillips Sea Food.

Phillips Sea Food: A Taste of Tradition

Phillips Sea Food has been serving seafood in the region since 1956. The story of Phillips is the stuff of self-proclaimed legend, according to the company’s website. It began with A. E. Phillips, who established a crab-processing plant on the Chesapeake Bay’s Hooper Island in 1916. His son Brice and Brice’s wife Shirley opened Phillips Crab House in Ocean City, Maryland, in 1956, in a small shack from which they sold surplus crabs and crabmeat from the Hooper Island plant. The legend begins with accounts of Brice and Shirley’s sons recounting their memories of this time, when they would sit “proudly on the front steps calling in to Mom in the kitchen that another guest was coming for dinner.” They also remembered tasting “mom’s new recipes or [helping] Dad steam the crabs” (Phillips Sea Food n.d.).

Between 1956 and 2003, Phillips witnessed a truly impressive expansion of their restaurant business. During this

period, Phillips Seafood Restaurants expanded to own and operate eight full-service restaurants in the Mid-Atlantic region, including three in Ocean City, one in Baltimore at the Inner Harbor, one in Washington, D.C., one in Annapolis, one in Myrtle Beach, South Carolina, and most recently one in Atlantic City, New Jersey. In addition, under the name of “Phillips Famous Seafood Express,” the company now has five “fast casual” food locations, with two in Maryland and three in airport locations. In terms of seafood restaurant name recognition, “Phillips has become as emblematic and trusted in the region as Brennan’s is in New Orleans” (Kliman 2005). Phillips is “A Taste of Tradition—serving authentic Maryland-style seafood since 1956” (Phillips Sea Food n.d.).

There is an important discursive theme in the legendary account of the rise of Phillips. In the telling of this story on the company’s website, a subtle transformation occurs in how crabs and food are discussed. In the early Ocean City days, the restaurant was preparing surplus crabs from the Chesapeake Bay, using Shirley Phillips’s “traditional” (and implied home?) recipe. In the 1970s, when larger and more elegant dining restaurants were opened in Ocean City, the description of the food served does not directly reference crabs: Phillips-by-the Sea Restaurant (opened in 1973) “serves traditional Phillips dishes in an elegant and relaxed dining room overlooking the sea”; the Phillips Seafood House, opened in 1977, has a menu that “is truly Phillips with the same seafood and crab delicacies served at our original restaurant and carryout” (Phillips Sea Food n.d.).

Already by the late 1970s, Phillips—the seafood restaurant—had begun to replace crabs as the connection to the Chesapeake for consumers of crabs and crab cakes. The process has continued, but the discourse suggests that the name recognition of Phillips has become increasingly important, so much so that even specific reference to the manner in which Phillips prepares its seafood appears to be no longer essential. In explaining the decision to open Phillips Seafood in Myrtle Beach, South Carolina, CEO Steve Phillips stated: “The relaxing, family atmosphere in Myrtle Beach is so similar to Phillips’ native town, Ocean City, Maryland, that the new location is a natural move for us. It feels like home in a sense” (Phillips Sea Food n.d.). Discursively, Phillips is a long way from selling surplus crabs on Hooper Island.

The Phillips story or legend, manifested in the evolution of their restaurant business, is a critical element that required and allowed Phillips to expand its operations to include the harvesting, processing, and importation of crabmeat. The strategy that linked restaurant-goers to Phillips, and through Phillips to the Chesapeake, is also being used by Phillips to expand their wholesale marketing of imported crabmeat. In 1990, Phillips reorganized crabmeat production into a year-round, offshore operation by relocating production to Southeast Asia. This reorganization was led by Steve Phillips, whose efforts and initiative in this expansion are well described on the company’s website:

While on a trip to the Philippines, Steve encountered a potential solution to the crab supply shortage that was troubling his restaurants. He found a crab almost identical to the domestic Chesapeake Bay crab, and discovered that locals considered it simply a by-product. Steve envisioned supplementing domestic crab meat with this species of blue swimming crab to ensure his restaurants' supply. . . .

In 1990, he purchased land on a remote island in the Philippines where he built his first processing plant, hired fisherman, supplied their equipment, taught them to crab, and eventually hired others to pick the crab meat in his plants. He set up a watermen's association and taught sound ecological practices to ensure the crab's population. Steve fulfilled his vision with the support of the entire community while becoming an important economic force in the region.

Crab production in Asia was literally a venture into uncharted waters for Steve. Since his first plant in the Philippines and his second in Indonesia, Steve has opened numerous other facilities across Southeast Asia and Central and South America in his search for the best quality seafood available in the world. Today, Steve owns and operates seafood processing plants in India, Indonesia, Malaysia, Philippines, Vietnam, Ecuador, Mexico and China and also sources seafood from Thailand and Sri Lanka for his thousands of customers across the globe. . . . Steve's approach is unique in the crab industry. Where crab was traditionally sold as a commodity item, Steve branded his product and encouraged customers to ask for it by name. [Phillips Sea Food n.d.]

According to A. C. Nielsen, Phillips is now ranked first in selling crabmeat in the country, providing an estimated 70 percent of the crabmeat sold in the United States to wholesale restaurant suppliers and grocery stores. Phillips Foods, a company that eight years ago recorded sales of \$10 million a year, is expected to reach \$500 million a year by the end of the decade.

Phillips has come to stand for an experience of the Chesapeake Bay and its foods. This is accomplished by labeling that associates the crab with a seafood company that is clearly from the region, and through language that links the imported crab to Chesapeake Bay traditions. Nowhere is this language more apparent than on the back of a can of Phillips pasteurized crabmeat, with Shirley Phillips's own "Maryland-style" crab recipe, "an authenticating stamp intended to convey to consumers a sense of continuity and tradition" (Kliman 2005).

Crab Food for All the Ecological Reasons

Although it is increasingly difficult to find crab cakes in the watershed made from Chesapeake crabs, there is a movement underway that promotes the eating of Chesapeake crabs. The "Chesapeake Club" is

a partnership of people in the Washington, D.C., metropolitan area working together to keep the Chesapeake Bay fun and full of the seafood we love. We're helping to restore and protect the Bay through simple, practical steps that touch our everyday lives, from how we care for our lawns to how we clean up after our pets

to what we plant in our gardens and more. [Chesapeake Club n.d.]

The Chesapeake Club is made possible through an initiative of the Chesapeake Bay Program, a multijurisdictional program committed to restoring the bay's living resources: the fish, crabs, oysters, and other aquatic life and wildlife.

The mission of the Chesapeake Club appears to be twofold. The first is to provide information to urban residents (Washington, D.C., is targeted) on how to enjoy the Chesapeake Bay at home, through food and lifestyle. The website offers guidance on entertaining ("how to throw the perfect crab feast, Chesapeake-style"); recipes ("taste the Chesapeake with the region's best recipes and cookbooks"); day trips ("from Washington and its suburbs"); homefront ("create the Chesapeake homestead—a place in touch with the neighborhood and the watershed"); restaurants ("find restaurants and bars that have joined the Chesapeake Club to protect the food they serve"); romantic spots ("romantic getaways not too far from home, where you and a special someone can connect to your inner Chesapeake"); and yard care ("develop and maintain a healthy Chesapeake yard without becoming a fertilizer dump").

A second goal is to help protect the bay's ecosystem and natural resources by alerting residents in urban areas about the effects of their lifestyle on the Chesapeake. The only focus of this goal to date has been on ways urban residents can reduce excess fertilizer runoff from their lawns. The website provides information on yard care and lawn services where one can "find lawn care professionals who offer the Chesapeake Club standard—a standard of lawn care designed specifically for the grasses, soils and growing seasons of our watershed." To alert Washington, D.C., residents of the need to better manage their lawn fertilizer application, the Chesapeake Club launched a media campaign in the spring of 2005. In catchy language, the website offers this description of the campaign:

Yeah, we know there's a lot of stuff we're supposed to do. Like be more polite. Like exercise. Okay, we're on that. But then we thought about what we really care about. We thought about the Chesapeake. We thought let's do something that really matters: Let's protect our favorite seafood. So that's why we have this campaign about putting off fertilizer until the fall. Take a look at what's airing in the DC area right now. [Chesapeake Club n.d.]

The campaign also placed print ads on billboards and posters in public areas, such as Metrorail. Commuters viewed large posters with either a glossy photo of a crab cake sandwich, accompanied by text stating "Protect the Crab Cake Population," or of grass growing out of oysters on a half-shell, complete with crushed ice, fork, and lemon slice, with text warning that "The Lunch You Save May Be Your Own." Billboards targeted lawn care more directly: "No appetizers were injured in the making of the lawn" and "Is the grass really greener if all the blue crabs are gone?"

The central message of the Chesapeake Club's ecological message is to delay fertilizing your lawns until fall. There is little or no technical explanation about why fall fertilizing is better than spring, although there are statements that suggest there might be more runoff in spring. The message is kept simple, avoiding any complex ecological discussion about the spatial or temporal issues of non-point source pollution.

What is also noteworthy about the Chesapeake Club website is what it does not say. Two relevant topics are not covered. First, there is absolutely no mention of the imported crab that comes into the region. The text and tone of the discourse leaves little scope for this issue. Rather, eating, playing, and yard care promoted are linked only to the Chesapeake Bay blue crab. The most egregious example of this "oversight" is the list of restaurants linked to the website that "have joined the Chesapeake Club to protect the food they serve." Over 50 restaurants in the Washington, D.C., Virginia, and Maryland urban areas are listed. These restaurants are introduced with the following text:

One of the best things about the Chesapeake life is that you're never too far from a great restaurant offering great seafood. More and more of these restaurants are joining the Chesapeake Club as part of their commitment to serving great seafood—and saving the seafood in the Bay. So whether it's fried oysters or crab soufflé you're craving, visit these Chesapeake Club restaurants and savor the Chesapeake life. [Chesapeake Club n.d.]

However, many of the restaurants listed are most likely using some or even all imported crab meat in their crab dishes. Again, although this may be understandable from a restaurant business perspective, it is inconsistent with the explicit message of the Chesapeake Club: do not pollute the bay and kill crabs, instead eat them by supporting the listed restaurants. Without more information, the public would assume that these restaurants are committed to protecting the Chesapeake's seafood in a manner consistent with the Chesapeake Club's mission. Although certainly some of the restaurants are concerned and may in fact buy some local seafood, the number of restaurants listed and the large size of some suggest that imported pasteurized crabmeat is used extensively.

The Chesapeake Club's website is also missing any reference to commercial watermen as harvesters of the Chesapeake Bay seafood that purportedly supplies the listed restaurants. It is clear from the focus and language of the Chesapeake Club that the goal is to enjoy and play on the Chesapeake. Thus, it is perhaps not surprising that there is no reference to "working the Chesapeake" to harvest natural resources to support livelihoods and communities. This omission, coupled with the absence of any mention of imported crab meat, is a powerful indicator of how Chesapeake Bay food traditions are being redefined in ways that exclude the primary producers and harvesters of the Bay's actual food. Watermen are increasingly less of that Chesapeake tradition. Even the food they harvest, on which there is agreement that it is some of the best in the world, is not

sufficient to sustain the connection. Efforts to connect urban residents to the bay, such as those undertaken by the Chesapeake Club, provide no avenue to connect to watermen and their communities. In fact, such efforts only further distance consumers of Chesapeake foods from the local sources of those foods. The production process incorporated by the Chesapeake Bay Club's campaign to "save crabs so as to eat them" is an ecological one: we want to save the crabs as a proxy for "saving the bay." Ultimately, the concern is to have an ecologically productive bay for recreation and food. How that food is harvested and the implications for the coastal communities that have relied on a commercial crab fishery are excluded from this discourse.

CONCLUSIONS

Eating steamed hard crabs, sautéed soft crabs, or crab cakes is a rich and pleasurable food experience, and one that has not changed for centuries for people in the Chesapeake Bay watershed. What has changed is the production process of the crabs consumed in the watershed. Historically, the crabs consumed, regardless of their preparation, were caught in the Chesapeake Bay by local watermen who depended on them for their livelihood. Although watermen continue to depend on crabs for their livelihood, their market for hard crabs is constrained by the presence in the region of imported crab meat, which is principally used to make crab cakes. Many watermen recognize that recent declines in harvest of blue crabs from the Chesapeake have contributed to the need for seafood businesses to look for other crabs that can substitute as food for the Chesapeake Bay blue crab.

Nonetheless, the recent and rapid increase in imported, pasteurized crab meat would not have been possible without the inclusion of some form of traditional production associated with the Chesapeake. The use of imported crab meat to make crab cakes emphasizes the final preparation stage of the production process and creates space for a tradition's discourse of the type deployed by Phillips Seafood and others. Discursively, the work, knowledge, and practices of watermen in harvesting and marketing crabs no longer play a significant role in much of the crab consumption in the region. Although it may be there, it is more background, like the images of fishing boats, harbors, and catch on the walls of the region's seafood restaurants or on the top of seafood containers of imported crab meat sold retail in markets. These long-time food processing connections create a situation where the vast majority of consumers of crabmeat and crab cakes in the region do not question whether they are eating crab from the Chesapeake Bay. It is tacitly assumed that the crabmeat is from the blue crab of the Chesapeake or perhaps a nearby state. This is an implicit and strongly held assumption, and one that is reasonable given the historical connection of crabs to the Chesapeake. However, this historical connection has been reconstituted with a focus on processors of crabs and their links to the bay, rather than the primary producers-harvesters: the watermen. It is no longer the labor, knowledge, and practices

of commercial watermen but, rather, the preparation and processing of crabs that now constitutes the Chesapeake's value.

From a cultural model perspective, the replacement of explicit references to the working fishery with discourse on traditions of food preparation of crabs suggests those consumers' schemas for Chesapeake crab cakes need not include any reference to the fishery. If the crab cake is consumed in the region or branded with a reference to Maryland or a qualifier such "made in the Maryland tradition," most consumers will implicitly view the food as coming from the Chesapeake Bay. The marketing of seafood retailers and restaurants, such as Phillips Sea Food, supplies the consumer with explicit information that is sufficient to "connect" them to the Chesapeake Bay, even if this relationship is indirect. What is most significant here is the lack of need for most consumers to be connected to the fishery to have a "Chesapeake Bay" crab cake experience, which is a larger commentary on the growing cultural and economic disconnect between coastal fishing communities and the consumption of their seafood.

Still, there is a new production discourse that focuses directly on linking the consumer to blue crabs in the Chesapeake. This discourse, exemplified by the language and focus of the Chesapeake Bay Club, privileges an ecological rationale for eating Chesapeake Bay crabs and seeks environmental change from local consumers. However, once again, the fishery that provides these Chesapeake Bay crabs is excluded from the ecological and lifestyle discourse around crabs. The discussion also raises questions about how the Chesapeake Bay is being redefined as a place for recreation and play, which requires a healthy ecosystem but not necessarily local watermen if our seafood is still prepared (not produced) using Chesapeake or Maryland-style traditions (Paolisso 2006).

Nonetheless, future food production and consumption pathways for Chesapeake Bay crabs are not inevitable. It is possible that the strong regional connections to Chesapeake foods, crabs in particular, can be used to reconnect local consumption to local production, with benefits to consumers, watermen, and processors. Clearly, production and marketing arrangements would need to evolve to match local and regional needs, and the seasonality and ecology of the natural resource base would become critical components of the food system. We already have some evidence that this is possible, as witnessed by the recent appearance of a new quarterly publication *Edible Chesapeake*, which seeks to promote and celebrate the abundance of local foods in the Chesapeake watershed (Edible Chesapeake n.d.).

The discussion of these shifting meanings of the production process around Chesapeake Bay blue crabs fits within a broad-ranging environmental anthropology concern about discourses and implicit cultural meanings, and how such knowledge and values are deployed to create connections to nature and the environment (cf. Cronon 1996; Crumley 2001; Kempton et al. 1995; Milton 1993, 1996). The Chesapeake Bay provides an excellent study site for how explicit information and knowledge about environ-

mental issues—including the production and consumption of natural resources—evolve and change, and how, in that process, they create and modify implicit cultural models of the environment (Paolisso 2006). Given the vast number and complexity of environmental issues facing communities at local, regional, and global scales, and because cultural models necessarily simplify reality and allow individuals to understand and act, continued research into their construction and use is an important applied and policy-relevant contribution of environmental anthropology.

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NOTES

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1. The top four states reporting crab landings in 2003 were North Carolina (22,252 MT), Louisiana (20,022 MT), Maryland (16,757 MT), and Virginia (14,974 MT). See Miller and colleagues 2005.

2. I do not discuss soft crabs further in this article, because the largest amount of imported crab arrives as crabmeat picked from steamed hard crabs. However, soft crabs are being imported into the United States and are increasingly competing with domestic soft crab harvesting and marketing, which is a topic for exploration in another article.

3. It has been assumed that the majority of this increase of crabmeat imports in airtight containers (ATCs) is pasteurized crabmeat, and not lower-quality shelf-stable meat, given that the increased demand for such imports would be in crab cakes, which generally require the pasteurized crabmeat (personal communication, Doug Lipton, October 20, 2005).

4. There are a few restaurants that advertise that they serve only seafood from the Chesapeake Bay. These restaurants are comparatively small and tend to be located in small coastal communities.

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Transforming Milk in a Global Economy

ABSTRACT Large-scale milk production and consumption historically have been localized to Europe and countries with large European-derived populations. However, global patterns have now shifted, with dramatic increases in milk consumption in Asian countries and flat or declining consumption in European and European-derived countries. Efforts to market it around the world emphasize milk's positive effects on child growth, and, by extension, the individual and national benefits that derive from that growth. At the same time, milk has newly emerged in milk promotions in the United States as food that facilitates weight loss. Milk has been able to achieve a global presence and continuing relevance in populations in which its consumption has been declining by continually transforming and repositioning itself as a "special" food with properties able to alleviate the health concerns seen as most salient at the time. [Keywords: milk, globalization, child growth, United States, China]

COW'S MILK has long held a privileged position in U.S. culture, as "nature's most perfect food" (DuPuis 2002). From biblical references to its ubiquitous presence in various government-subsidized child-feeding programs, milk's inherent goodness is largely uncontested. Western assumptions that milk has been universally revered and an important part of human diets have not been shared by cultures throughout the world, many of which have disdained milk, viewing it as disgusting or otherwise unsuitable for human consumption (Harris 1985). However, throughout the 20th century and into the 21st century, milk has undergone a series of literal and symbolic transformations, not only in the United States and other European-derived cultures but also in places where milk has not been part of traditional diets.

First, milk has become a globalized commodity. Global production and consumption of cow's milk are at all time highs (U.S. Department of Agriculture [USDA] 2006). Milk production is still largely centered in countries with large European-derived populations, but in these same countries consumption of milk has been flat or declined. Meanwhile, there has been tremendous growth in Asia, and, to a lesser extent, in Latin America. As per capita incomes rise, many developing countries are said to be on the cusp of a "Livestock Revolution," as the demand for milk and other animal-source foods increases (Delgado 2003). Second, in efforts to market it around the world, milk has become synonymous with child growth, and the milk-growth linkage has taken on more expansive meanings in emergent economies. Whereas milk retains a positive association with

strength and height, it has also newly emerged in milk promotions in the United States as a food that facilitates weight loss (Schardt 2005). Milk has been able to achieve a global presence and continuing relevance in populations in which its consumption has been declining by continually transforming and repositioning itself as a "special" food with properties able to alleviate the health concerns seen as most salient at the time.

In this article, I explore the current and historical position of milk, with a focus on the United States and China. These two countries have vastly different culinary histories and are experiencing opposite trends in milk consumption. In the United States, milk historically has had a central position in the diet, yet consumption is declining. In China, milk has played little role in the traditional diet—indeed, it was reviled by many—yet in recent years consumption has skyrocketed, and the global dairy industry has identified China as the key emerging market for their products.

I consider the following questions: How has fluid milk, previously localized in its production and consumption, come to be a desirable new commodity in China, where it has not been part of the traditional diet and where most of the population is lactose intolerant? Why are people in the United States drinking less milk, given that milk has long been of culinary importance there? How has milk come to be associated with child growth and height? How has milk been able to transform from a food that promotes growth to one that induces weight loss? And, finally, how has milk, often viewed as the most "natural" of foods, been technologically transformed to take on new roles, reflecting other

TABLE 1. Total fluid and dried milk production, consumption, and trade in 1,000 metric tons from selected countries, 2000–05.

Selected countries		Total fluid milk production	Total fluid milk consumption	Per capita ¹ fluid milk production (kg)	Per capita ¹ fluid milk consumption (kg)	Total dried milk ² production	Total dried milk consumption	Total dried milk imports	Total dried milk exports
North America									
Canada	2000	8161	2913	253.3	90.4	75	79	5	39
	2005	7775	2835	241.3	88.0	85	85	3	15
United States	2000	75929	26890	256.1	90.7	659	709	6	157
	2005	79625	27450	268.6	92.6	685	707	3	250
Mexico	2000	9305	3915	86.9	36.6	151	151	163	0
	2005	10063	4468	94.0	41.7	160	160	205	0
European Union									
	2000	129392	36226	695.3	194.7	1322	2343	64	1045
	2005	131700	34403	707.7	184.9	1090	1930	28	770
Asia									
China	2000	8274	3813	6.3	2.9	58	580	73	10
	2005	23700	11606	18.2	8.9	70	850	233	32
India	2000	36250	33000	27.8	25.3	150	150	17	5
	2005	38500	38500	29.5	29.5	270	270	0	15
Japan	2000	8497	4971	66.5	38.9	194	194	52	0
	2005	8290	4890	64.9	38.3	185	185	4	0
Philippines	2000					0	0	160	0
	2005					0	0	178	48
Thailand	2000					0	0	88	0
	2005					0	0	120	0
Oceania									
Australia	2000	11172	1992	549.0	97.9	264	451	9	422
	2005	10200	2019	501.2	99.2	193	380	14	323
New Zealand	2000	12235	346	2979.1	84.2	197	617	0	582
	2005	14625	360	3561.0	87.7	237	846	3	855

¹Based on 2005 total population. Source: www.prb.org; kilograms per capita.

²Dried milk includes nonfat dried milk and whole milk powder. Source: <http://www.fas.usda.gov/dlp/circular/2005/05-07dairy/toc.htm>.

social, cultural, and economic trends? I examine the “real” and “imagined” attributes of milk, both from the perspective of scientific findings and the cultural contexts in which milk is produced and consumed.

GLOBAL PRODUCTION OF COW'S MILK

Over the past 40 years, global milk production has surged, increasing by about 240 percent (USDA 2006). Growth in production has been particularly high in developing countries, where it has more than doubled in the past 20 years, with continued growth projected (Knips n.d.). This trend has been accompanied by expanding trade networks for milk. The volume of the world dairy trade increased by 25 percent from 1995 to 2000 (U.S. Dairy Export Council 2002). Countries that produce the majority of milk for the global market include those of the European Union, Australia, and New Zealand. India is also a major milk producer but neither imports nor exports large quantities of milk. National and global economic policies regarding tariffs and domestic support of the dairy industry complicate the global flow of dairy products, as detailed in a recent issue of *Food Policy* (cf. Beghin 2006).

Fluid milk is destined primarily for domestic markets. As shown in Table 1, in 2000, the European Union was by far the largest producer of fluid milk, followed by the United States, India, and New Zealand. However, by 2005, China's production surged well past that of New Zealand. Countries

that produce a lot of fluid milk also produce large quantities of dried milk, the main form in which milk is traded. Dried milk is particularly suitable for long-distance marketing, preservation, or use in commercial manufacture of other products. The European Union is the largest producer and exporter of powdered milk, followed by New Zealand, Australia, and the United States. Exports are directed primarily toward countries in East and Southeast Asia, and Mexico, where there is low per capita domestic production.

Table 2 provides historical data on long-term changes in national milk production, imports, and exports over the past 40 years. The greatest growth was in Asia, with Thailand, China, and India all reporting more than fivefold increases in cow's milk production, and Japan having tripled its production. Among traditional milk-producing countries, New Zealand increased its production the most, followed by Australia and the United States. European countries, along with Canada, did not sustain large increases in production and, in some cases, actually showed a decline.

Milk production and processing are increasingly controlled by transnational corporations. Three of the largest food corporations in the world (Nestlé SA, Altria [Kraft], and Unilever) are heavily involved in the global dairy industry. The international dairy industry has also become consolidated among fewer larger firms over the past decade. Between 1998 and 2000, there were 415 mergers and acquisitions of dairy companies worldwide (Pritchard 2001). Among dairy corporations with an international

TABLE 2. Proportional changes in milk production, imports, exports, and consumption over the past 40 years.

Country	Time period	Changes in total cow's milk production	Changes in imports	Changes in exports	Total fluid consumption
Argentina	1965–2004	1.92	30	1	1.82
Brazil	1964–2004	4.13	3	4	3.51
Chile	1964–2004	2.55	0	0	1.50
Mexico	1964–2004	2.55	20	0	1.47
Peru	1964–2004	1.80	0	0	6.59
Venezuela	1964–2003	2.18	0	0	1.05
Canada	1964–2004	0.93	5	15	1.02
United States	1964–2004	1.44	0	0	1.11
Denmark	1964–1996	0.90	0	12	0.66
European Union	1997–2004	1.01	0	0	0.94
Greece	1964–1996	1.78	2	0	2.05
Hungary	1964–1992	1.33	0	10	1.15
United Kingdom	1964–1996	1.27	0	2	0.88
Egypt	1984–2004	0.85	0.01	0	3.00
South Africa	1964–1993	1.01	0	0	1.17
China	1964–2004	6.63	6	28	15.51
India	1964–2004	5.42	0	0	4.45
Japan	1964–2004	2.76	0	0	3.04
Philippines	1964–2004	0.57	48	0	3.22
Thailand	1964–2004	9.14	0	28	8.21
Australia	1964–2004	1.54	6	87	1.31
New Zealand	1964–2004	2.57	0	45	0.79

Source: United States Department of Agriculture 2006. Numbers represent the amount from the last year divided by the amount from the first year.

presence, Nestlé is the largest. Other major players include Dairy Farmers of America, Dean Foods, Danone, Altria [Kraft], and Parmalat.

MILK CONSUMPTION TRENDS

Growth in global production of fluid milk should be mirrored by increases in consumption. As Table 1 shows, annual per capita fluid milk consumption is highest in the European Union (~185 kg) and other European-derived populations (United States, Canada, Australia, and New Zealand; ~85–99 kg), but over the past five years consumption trends in these countries have remained relatively flat, with very modest gains or losses. In Asia, milk consumption remained flat in Japan but tripled in China. Although China's per capita consumption is still very low, only two to three percent of that in the United States, European Union, or Australia, it is increasing rapidly.

Taking a longer historical view, Table 2 shows tremendous growth in milk consumption in Asian countries since the early 1960s. China leads the group with a remarkable 15-fold increase in per capita milk consumption. Thailand is at about half of that, with India, Japan, and the Philippines experiencing a tripling or quadrupling of consumption. During these same 40 years, consumption of milk has not changed or has declined in the United States, Canada, and Europe. Trends in overall fluid milk consumption in selected countries are represented in Figure 1. Growth potential in the dairy market is clearly greatest in developing countries and those in which milk has not played a large role in traditional diets.

What forces are driving these divergent milk consumption trends? Dairy industry analysts cite demographic

changes, notably the aging of the population, as well as increased competition with other beverages such as soda, bottled water, and juice as factors underlying declining milk consumption in Western countries (Beghin 2006; Pritchard 2001). In developing countries such as those in Asia, younger populations, growth in income and purchasing power, changing food preferences, and urbanization are seen as key to the boom in the dairy market (Beghin 2006; Delgado 2003; Pritchard 2001).

MILK PRODUCTION AND CONSUMPTION IN THE UNITED STATES

In the United States, production of cow's milk dates back to the colonial period, although it remained a small-scale domestic enterprise until well into the 19th century. Milk was first produced in large quantities for growing urban populations and to provide a breast-milk substitute for infants of working mothers (DuPuis 2002). After dramatic gains in production during the late 19th and early 20th centuries, milk production increased only modestly over the past 40 years (see Table 2). Local family-owned dairies have all but vanished, with milk companies becoming increasingly consolidated. Dean Foods controls about 35 percent of all milk sales in the United States, with over \$9 billion in sales annually (Encyclopedia of American Industries n.d.).

Individual consumption of fluid milk has not kept pace with overall production; it has actually declined over the past 30 years, as Table 3 demonstrates.¹ Total beverage milk consumption has gone down over 30 percent, from approximately 190 pounds (86 kg) per year to less than 130 pounds per year (58 kg; see U.S. Department of Agriculture

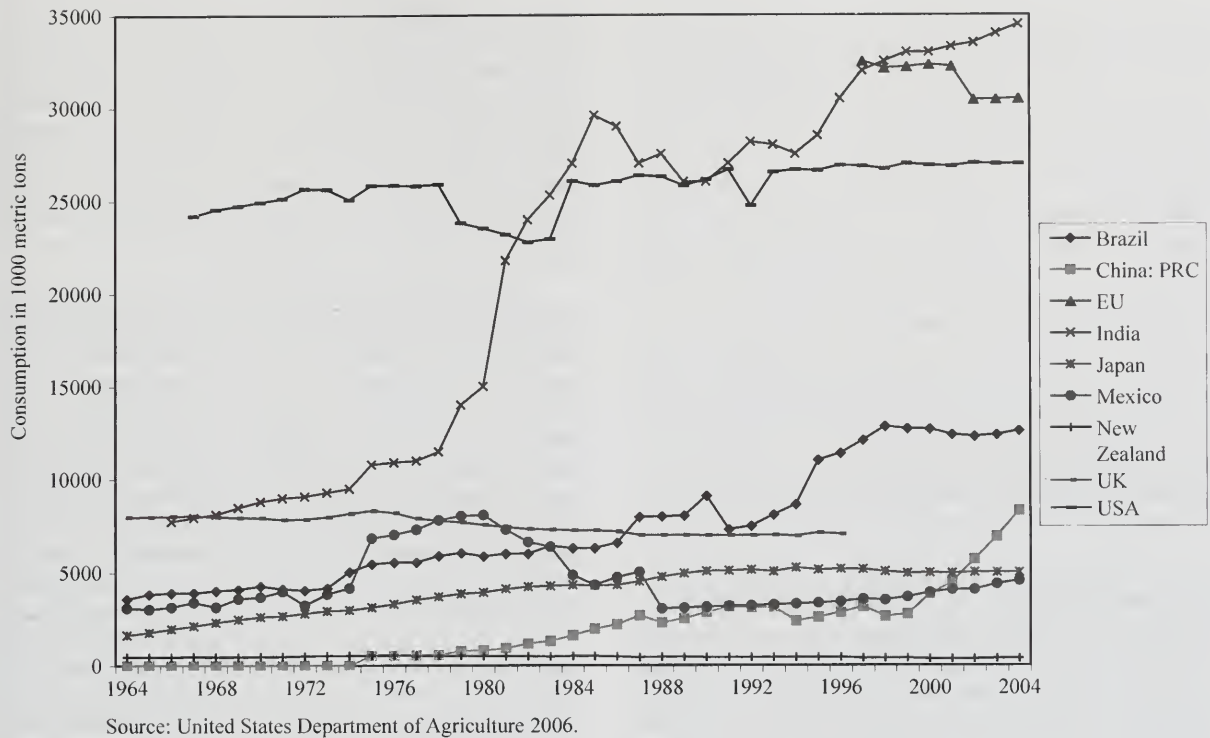


FIGURE 1. Trends in cow's milk consumption.

[USDA]—Economic Research Service 2005). There have also been changes in the types of milk consumed, with fat-reduced milks collectively overtaking consumption of whole milk. Although consumers may be more conscious about the dangers of saturated fat in their diet and hence reduce their consumption of high fat milks, it is notable that cheese consumption has almost tripled, such that U.S. citizens are now consuming saturated milk fat in solid (cheese),

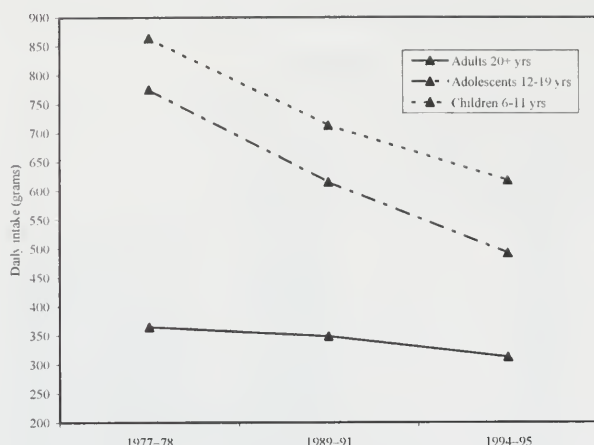
TABLE 3. Changes in per capita daily fluid milk and cheese consumption in the United States, 1977–95, based on consumption survey data.

Years	Total fluid milk (g)	Whole milk (g)	Low fat or skim milk (g)	Cheese (g)
Adults (20+ yrs.)				
1977–78	365	169	81	33
1989–91	349	112	232	28
1994–95	313	89	217	33
Adolescents (12–19 yrs.)				
1977–78	775	423	171	20
1989–91	615	242	350	28
1994–95	492	167	318	33
Children (6–11 yrs.)				
1977–78	864	500	163	15
1989–91	713	326	369	22
1994–95	618	229	370	26

Sources: Enns et al. 1997; Enns et al. 2002, 2003.

as opposed to fluid (whole milk), form (USDA—Economic Research Service 2005). Similarly, yogurt consumption has steadily increased since the 1970s and is a rapidly growing part of the dairy industry (although the United States lags well behind other European countries in levels of consumption; USDA—Economic Research Service 2005). Yogurt is perceived as a healthy food for adults and children, and with the rise of the marketing of probiotics (“healthy” bacteria), yogurt is poised for continued growth. As a result, whereas fluid milk intake has declined, dairy calories and dairy servings have not changed markedly since 1970.²

As Figure 2 indicates, declines in fluid milk consumption have occurred across all age groups, but intake by school-age children and adolescents has declined more severely than that of adults (Enns et al. 1997; Enns et al. 2002, 2003). Despite this, children still consume about two times as much milk as adults, and adolescents consume about one and one-half times as much. Meanwhile, there has been an unprecedented rise in bottled soft drinks, juices, and waters. Popular among adults and children alike, often sweet and not vulnerable to spoilage, these have made significant inroads into the beverage market such that U.S. adults now drink almost eight times as much soda or fruit drinks as milk (Popkin et al. 2006). The dairy industry has had to redouble their efforts to compete effectively. As Jeff Manning, one of the creators of the “got milk?” advertising campaign, noted, by the early 1990s “milk was in desperate need of a resurrection” (Manning 1999:6).



Source: Enns et al 1997, Enns et al 2002, 2003

FIGURE 2. Changes in fluid milk consumption in the United States, 1977-96.

MILK PRODUCTION AND CONSUMPTION IN CHINA

In China, cow's milk historically played a limited role in the diet. Milk products were produced by nomadic peoples in the north and west and mainly consumed by the Chinese upper classes. After the Mongol dynasty ended in the 14th century, milk products all but disappeared from the culinary scene (Huang 2002). Anthropologist Eugene Anderson suggests that the decline in the use of milk products was part of a nationalist agenda of the Ming to denigrate foods associated with the foreign "barbarian" Mongols (Anderson 1987). Soybeans, processed into soymilk and *dofu*, along with various leafy vegetables, provided sufficient nutrients and generated greater land productivity than did livestock grazing. Thus, most Chinese did not encounter milk after weaning, and the mutation conferring continued production of lactase (the enzyme that digests lactose, the sugar in milk) had no opportunity to spread (Huang 2002). The absence of dairy products appears to have co-occurred with an aversion to milk. Robert Lowie marveled at the "astonishing fact that eastern Asiatics, such as the Chinese, Japanese, Koreans, and Indo-Chinese have an inveterate aversion to the use of milk" (Harris 1985:130). Marvin Harris took it farther, concluding that "the Chinese and other eastern and Southeast Asian peoples . . . loathe it [milk] intensely" (Harris 1985:130). As for cheese, Anderson translates a Chinese description: "the mucous discharge of some old cow's guts, allowed to putrefy" (Anderson 1987:146).

In light of this historical context, it is startling that China's levels of milk production and consumption have experienced the greatest growth of any country over the past two decades. China is now said to have a "thirst for dairy" (Baumes 2004). Per capita fluid milk consumption has been estimated to be around 10-13 kilograms, which represents a doubling since 1993 (Baumes 2004). Given that the current world per capita consumption estimate is 98 kilograms, and that China has over one billion citizens, op-

portunities for the growth of this market are seen as particularly rich.

Overall, dairy product sales in China are growing at the rate of 25 percent per year, and China's dairy industry is worth close to \$1 billion (Dairy Industries International 2006). At present, the dairy industry represents about ten percent of the Chinese agricultural economy (Fuller et al. 2004), which is comparable to the United States where it accounts for about 11 percent of the agricultural economy (U.S. Department of Commerce 2002).

The increased demand for milk in China is being met by a combination of increased imports of dried and fluid milk and domestic production of fluid milk. Dairy cow productivity has increased but is still substantially lower than that of cows in the United States (Baumes 2004). China's Ministry of Agriculture has put into place the "Advantageous Cow Milk Area Development Program, 2003-2007" to increase milk production efficiency and consumption of milk products. China's dairy industry is well on its way to becoming consolidated, as small operations are bought up by larger dairies, and as China's dairies develop linkages with transnational corporations. One of the largest dairies in China is the Mengniu Dairy, based in Inner Mongolia, which was founded in 1999. Mengniu Dairy is poised to be one of the largest dairy firms in the world; it trades on the Hong Kong stock exchange and has received a large amount of foreign investment. Inner Mongolia Yili Industrial and Shanghai Bright Dairy and Food Company are other major players, and the latter's Bright Dairy School Milk Co., Ltd. is a main contributor to Shanghai's school milk program as well as those in other cities and provinces. Foreign dairies involved in China include Nestlé, Groupe Danone, New Zealand's Fonterra Cooperative Group, and Parmalat.

Growth in milk consumption in China is largely focused in urban areas, where fresh milk intake was found to be more than 13 times greater than in rural areas (Baumes 2004). Fluid milk consumption has increased across all income levels but especially among higher income groups (Fuller et al. 2006). A quantitative survey of dairy purchases in three Chinese cities (Beijing, Shanghai, and Guangzhou) confirms the growing importance of milk in urban Chinese diets (Fuller et al. 2004). Of the 314 households surveyed, over 90 percent purchased fluid milk, with an average purchase of just over one liter of fluid milk per week. Most bought milk at the supermarket, but over 20 percent had home delivery of bottled milk. Supermarkets often offer dairy promotions, giving away small gifts or free dairy products with purchases. The majority of consumers reported hearing about milk in advertisements or from health professionals. In Shanghai, 56 percent reported drinking milk daily (average 200 milliliters), and consumers described as "health conscious" were those most likely to buy milk. About one-third of the sample reported buying imported milk or milk products, in part because of the lack of domestic suppliers but also because they attributed superior safety, taste, and quality to the foreign products.

Milk consumption within households varied, but children were not always the primary consumers of milk or other dairy products. Only 20 percent of households with three members reported that children consumed more than 75 percent of the dairy product purchase. Yogurt was the second most commonly purchased dairy product. Many households reported eating cheese at Western-style restaurants serving pizza or cheeseburgers, but very few purchased cheese for home consumption.

PROMOTING MILK IN THE UNITED STATES AND CHINA

Very different milk consumption patterns currently exist in the United States and China, but both governments and local or multinational dairy industries share a common goal: to increase milk consumption. In the United States, this means reversing the decades-old downward trend in consumption and boosting intake across age groups, especially adolescents and adults. In China, it means increasing familiarity with this new food and boosting consumption across the board. The means by which milk is promoted are similar in many ways, although there are some important differences.

In the United States, milk is promoted by the dairy industry; federal, state, and local governments; and health officials, dietitians, and nutritionists. It is the only single food mandated for consumption in various government-sponsored feeding programs such as school breakfast and lunch programs. These date back to the 1920s when some schools provided milk as a snack and subsidized it for poor children. In a Newton, Massachusetts, school district, children who were ten percent or more underweight were required to report for their mid-morning milk, and milk was served in the classroom "while the teacher tells them about this wholesome product ... [and] ... to cultivate a taste for milk as the one best food for growth" (Crumbine and Tobey 1929). Such programs were ultimately supported by a mandate from the federal government in the School Lunch Act of 1946, with reduced-price or free milk provided for low-income families. Such programs now include milk subsidies from the USDA for private feeding programs, as well as the Special Supplemental Nutritional Assistance Program for Women, Infants, and Children (WIC). Thus, through these programs, the USDA and the dairy industry cooperate to increase milk consumption.

Milk advertisements emphasize milk's health benefits. The 1980s slogan "Milk does a body good" was a generic statement about milk's "healthiness," but the message became more specific with the "got milk?" campaign in 1993, which highlighted milk's ability to promote growth in height and "strong bones" and to thereby prevent osteoporosis. The milk nutrient most emphasized became calcium. In *Revolution at the Table*, Harvey Levenstein notes that the discovery of vitamins and minerals in the 1920s constituted "an advertiser's dream" (1988:152). The association of calcium with milk appears in advertisements as early as the 1930s, but these became more explicit in the

1960s, and it is this special aspect of milk that has persisted into the 21st century as the main justification for its prominent place in the Dietary Guidelines for Americans (U.S. Department of Health and Human Services and USDA 2005). Indeed, milk seems to "own" this mineral: advertisements are clearly intended to lead people to believe that milk is the best or only way to get sufficient calcium, that children in particular need a lot of this mineral, and that failure to drink milk is likely to result in growth deficits or long-term health problems (Goldberg et al. 2002).

A special relationship between milk and growth was seized on by the National Dairy Council (NDC) when it was established in 1916. With support from the USDA, milk began to be promoted as the ideal health- and growth-promoting food for children (DuPuis 2002). Increasing urbanization in the 19th century and the decline in breast-feeding, with its concomitant feeding of infants with various cow-milk preparations, undoubtedly facilitated the extension of cow's milk drinking into childhood. The association of milk consumption with a period of very rapid growth during infancy undoubtedly underlies the reasons why the relationship between milk and growth seems so intuitive. And, because infants needed milk everyday to grow, by extension children would too. Early recommendations were for a quart per day; current U.S. dietary guidelines recommend that citizens consume three cups per day (24 oz.) of fat-free or low-fat milk or equivalent milk products (USDA n.d.).

The Chinese government's rhetoric regarding its support of the domestic milk industry also focuses on the perceived health benefits of milk, although here the emphasis is on the benefits at the population level. A vice director at the Ministry of Agriculture cites the need to "develop scientific eating habits from a young age," and the government initiated a subsidized school milk program in 1999 (Chen 2003b). The establishment of a joint government- and business-sponsored school milk program is a key part to the government's strategy to increase milk consumption, insure the health of the nation, and provide an economic stimulus to China's burgeoning dairy industry. As Jun Jing notes, in the context of a single-child population policy, "The Chinese government has tried to educate the public to heed the officially identified need to improve the country's 'population quality' (*renkou sushu*). This concept covers not only physical and mental fitness but also officially desired occupational skills and educational achievement in the country's labor force" (Jing 2000:12). Education about proper child nutrition and promotion of milk is part of this effort to achieve "population quality." It is ironic that this "foreign" food—milk—has now come to serve such pronationalist goals, whereas it had previously been shunned as part of nationalist efforts to reclaim China from the Mongols.

Further promotion of milk consumption was achieved at the Third International School Milk Conference, which was held in April 2005 in Kunming. The conference aimed to demonstrate the important role of school milk programs

in promoting nutrition among children, "thereby ensuring that they will be strong and healthy" (Food and Agriculture Organization n.d.). In China, the school milk program has the potential to serve 200 million children 200 milliliters of milk per day, which would exceed the total production of milk in China in 2001 (Fuller et al. 2004). Milk is also now listed in China's food guide pagoda (Painter et al. 2002).

Milk is marketed to new consumers of all age groups in a variety of ways. For adults, milk is hailed as an alternative to alcoholic beverages frequently consumed at restaurants, banquets, and special events. This strategy met with some initial resistance but has subsequently taken off, and milk, long absent from culinary culture, is now commonly available in urban restaurants (Chen 2003b; Huang 2002). Milk is considered healthier than alcohol—and particularly it has its own special positive health effects ranging from fighting germs, improving the skin, keeping teeth healthy, and preventing aging. During the SARS epidemic in 2003, milk was widely extolled in the media as a source of vitamins and minerals to improve immune function (Tait 2005). However, the frequent outcome of stomach complaints is also well-known. Shanghai Bright Dairy operates a 24-hour hotline to field questions about milk, many about upset stomachs (Chen 2003a). Such complaints largely derive from the fact that many Chinese are likely to experience symptoms of lactose intolerance when they drink milk (Huang 2002).

Marketing to children includes the promotion of flavored milk (esp. fruit flavors), cartoon images on milk cartons, supermarket toy giveaways with milk purchases, and the use of famous athletes such as Tian Liang, the Chinese Olympian diver, and Liu Xiang, the Olympian hurdler, in milk advertisements (Chen 2003b). The use of successful, internationally known athletes to advertise milk highlights milk's relationship to strength, size, and resilience and serves nationalist, family, and individual goals for strength and health.

HIGHLIGHTING THE MILK-GROWTH RELATIONSHIP

The emergence of a special relationship between cow's milk and child growth in the United States made sense to an emergent middle-class public that had become more preoccupied with the physical growth and feeding of children in the early 20th century (Levenstein 1988). Studies demonstrating that milk did indeed promote growth provided confirmation of this relationship. Experimental studies done by Elmer V. McCollum (the acclaimed "father" of nutrition) and others found that rats and mice supplemented with milk grew at faster rates and to larger sizes than those not given milk (Becker 1983 and McCollum 1957 provide historical reviews of this research). But the most important studies, still widely cited in contemporary reviews, are the two intervention studies of J. B. Orr (1928) and Gerald Leighton and Mabel Clark (1929), both published in *Lancet*. British school children of urban, working-class families were given a glass of whole or skim milk, a biscuit of caloric value equal to that of the skim milk, or no supplement on a daily

basis. After seven months, the milk-supplemented groups grew more in height (0.26 inches) and weight (0.64 pounds) on average than those getting biscuits or no supplement. These studies provided strong support for the idea that milk had special growth-promoting properties, leading some to interpret the rise in milk consumption as a cause of increases in height over the 20th century. For example, Stuart Patton, a well-known physiologist of mammalian lactation, writes:

While many factors have contributed to this increase [in height] it is obvious that calcium in the diet would be essential, and that products of the expanding American dairy industry would be the logical source of the calcium enabling this growth. . . . Of course calcium, while essential to increased bone growth and stature, is not the only contribution that milk would be making in this situation. High-quality protein and growth-promoting B vitamins and Vitamin D from milk would be other contributing factors. [Patton 2004:115]

There is also a striking parallel in Japan, where Eiji Takahashi claimed that milk "seems to be the most effective food for stimulating growth in height. . . . The short stature of Japanese in the past may be mainly caused by this low calcium diet" (Takahashi 1966:125).

Various Chinese officials articulate the view that the Chinese can "catch up" in size to Western populations by drinking more milk. The vice director of the Ministry of Agriculture only half-jokingly attributes China's soccer players' lack of international success to the fact that "they don't drink enough milk" (Chen 2003b). Susan Brownell notes, based on her work on changing diets in China, "Dairy products are not a typical part of the Chinese diet. The emphasis on them for athletes is a result of an awareness that they form a large part of the Western diet, the assumption being that they explain the greater size and musculature of Western athletes" (2005:254). A spokeswoman for Shanghai Bright Dairy and Food Company contends that consuming more milk will lead to faster growth rates among China's citizens and help make its men taller: "One cup of milk can strengthen a nation" (Chen 2003a).

Such hopes for an increase in physical growth among a new generation of Chinese children who drink milk was bolstered by wide dissemination of the results of a recent study from Beijing (Du et al. 2004) that indicated positive effects of a school milk intervention on growth in height among Chinese girls ages ten to 12 years with low baseline dairy and calcium intakes. The girls who were given 330 milliliters calcium-fortified milk five days each week for over two years grew significantly (albeit modestly) more (0.7 centimeters) than a matched group given no supplementary food. Unfortunately, unlike the Orr and Leighton and Clark studies, there was no additional experimental group that received a caloric supplement equivalent to that of the milk, so it is impossible to make any conclusions about any "special" effects that milk might have on growth in height.

In both China and the United States, milk promotions feature the positive effects of milk on growth. One particularly explicit advertisement from the United States

pronounces, “got milk? get TALL” (Milk Processor Education Program n.d.a). In another, Carson Daly pronounces, “Hey everybody! Want to grow? About 15% of your height is added during your teen years and milk can help make the most of it” (Milk Processor Education Program n.d.b). In an interesting fusion, China’s most internationally visible athlete, seven-foot, five-inch tall National Basketball Association (NBA) basketball player Yao Ming was featured as the Western Conference “got milk? Rookie of the Month” in 2001, wearing a milk mustache. In January 2007, Mengnui Dairy took this linkage one step further by entering into a partnership with the NBA, and acquiring the rights to promote their products in association with the NBA’s activities in China and other countries. In current Chinese advertisements, triumphant Olympian athletes, those who have competed successfully at an international level, are those promoting milk. The links between milk, size, and national success in global competitions are unmistakable.

It is important to acknowledge that although such advertisements appear to resonate well with, and “make sense” to, consumers in the United States and China, the data on which claims are based are surprisingly scant and generally do not strongly support such a conclusion. A review of studies published in the last 30 years indicates no clear effect of milk on growth in height (Wiley 2005). Supplementation studies have not demonstrated significant increases in height among subjects supplemented with milk (or calcium) compared to controls who received no supplement. The only context in which milk supplementation appears to have a significant positive effect on height is when children are undernourished to begin with, although even there milk does not seem to have effects that are distinguishable from supplements of other animal source foods (Grillenberger et al. 2003).

GRAZING COWS, INDUSTRIAL TRANSFORMATIONS, AND URBAN CHIC: TRANSFORMATIONS OF MILK IN A GLOBAL ECONOMY

Despite milk’s close affiliation with nature, deriving as it does from the teats of a lactating cow, milk has long been technologically transformed. Because milk is perishable and vulnerable to microbial colonization, it has to be altered for it to become a commodity for a mass market. The first change—perhaps the one most important to a positive association between milk and health—was pasteurization, which began in the late 19th century. Pasteurization reduced microbial contamination of milk and increased its shelf life, enabling greater efficiency in distribution. But even pasteurized milk requires refrigeration, and developments in transportation and domestic technology were needed to provide the necessary support system for wider distribution and consumption of milk. Ultra-high temperature (UHT) milk was the ultimate solution to this problem, as it allows milk to be stored indefinitely and transported without refrigeration. This type of milk never became pop-

ular in the United States but is favored by the well-off in urban China for its greater guarantee of safety.

The invention of the cream separator in 1871 allowed for an efficient separation of the cream (fat) from the rest of fluid milk and enabled the production of skim milk and other fat-reduced forms. The removal of this key nutrient from milk is the means by which milk can be promoted in the United States as an important part of a low-fat diet, and it also provided an opportunity for expanding cheese production. The transformation of milk from a liquid to a solid—specifically, cheese—further allowed milk to escape its status as a drink and become a “food” to be served on a plate, reassuring milk’s presence in meal even in the increasingly frequent absence of it in a glass. Further, because the fat portion of milk contains fat-soluble Vitamin A, fat-reduced forms must be refortified with this vitamin. Dairies begun adding Vitamin D to milk in the 1920s, when rickets, a bone disorder caused by a Vitamin D deficiency, was widespread. Vitamin D enhances calcium absorption, so milk would appear to be a reasonable food to fortify with this vitamin.

Homogenization was initially used in the manufacture of ice cream but became widespread for fluid milk by the 1950s. Homogenization causes the fat molecules to break up and become more evenly distributed in fluid milk, creating a more uniform appearance and richer taste. Furthermore, it renders milk more convenient as it is ready to drink right out of the carton, which was a boon to busy housewives in the 1950s. Additionally, sweet flavorings (chocolate, strawberry) were added to milk to make it more palatable, especially for children. *Acidophilus* milk (which has the bacterium *Lactobacillus acidophilus* added to it) and lactose-reduced milk became more common since the 1980s, having been created to enhance milk digestion among the growing numbers of U.S. citizens who are lactose intolerant. Likewise, yogurt derives from controlled bacterial fermentation, which in turn reduces the lactose content. Thus, the milk most U.S. citizens drink can hardly be considered a “natural” food; it has long been subject to technological intervention in the service of whatever health problems or target market is seen as most important at a given time.

It is less clear in China how many of these additional transformations occur. Milk is pasteurized, but widespread concerns about its safety remain. The milk form that has shown the greatest market growth is yogurt. In 2003, yogurt consumption was eight times greater than it had been in 1996, whereas fluid milk consumption had quadrupled (Fuller et al. 2006). In the context of high rates of lactose intolerance, it seems likely that only in this conversion will milk be able to maintain a central place among Chinese beverages. Furthermore, yogurt’s similarity to soymilk and tofu, both created from the fermentation of soybeans, may facilitate its acceptance. It is worth noting that in Japan and South Korea, fluid milk consumption has been declining since the mid-1990s, when per capita intake peaked at around 35 liters per year, well below that of the United States or other traditional milk-drinking countries (Dong 2006;

Schluep Campo and Beghin 2006). It may be that in Asia there is a lower ceiling for maximum fluid milk consumption, related in part to high rates of lactose intolerance, but there may also be important differences in how milk is supported by national dietary policies and promoted by health authorities in different Asian countries.

Although it seems more likely that milk drinking would emerge in a rural, farm-based economy, in both the United States and China, increased milk consumption occurred amidst economic expansion and urbanization, with urbanites the primary market for milk products. As Melanie DuPuis (2002) describes, routine cow's milk drinking in the United States is a relatively recent phenomenon, one that began not in bucolic preindustrial pastures but, rather, amid 19th-century industrialization and its associated urban squalor. During this time, however, milk consumption in cities was more likely to be associated with disease and child death rather than growth and health. Cows were crowded together and fed "swill," the remains of alcohol fermentation. It was not until pasteurization and refrigeration became widespread by the early 20th century that the "white poison" could be transformed into a healthful food, ideal for growing children across the nation (Atkins 1992).

Milk is thus a quintessentially modern food, produced and promoted as a source of whatever health-enhancing substances are perceived as necessary at a given time. In the United States, milk's technological transformations remain largely hidden from the public, which prefers to see happy cows grazing in verdant pastures rather than a highly industrialized process that adds and subtracts milk's ingredients to fit the present bill (see also Pollan 2006). However, in the early 20th century, advertisements highlighting the "scientific" and technological transformations of milk were welcomed by a public concerned about milk's safety and the safety of the nation (DuPuis 2002). In China, milk's associations with modernity, economic progress, wealth, and Western culture are transparent and interpreted in a positive light. In her study of children's diets in the Xi'an Muslim district, Maris Gillette remarks that

butter and milk in particular were regarded as typical of Western food. Even in snacks produced locally, the presence of dairy ingredients lent them an aura of foreign-ness and luxury. For *Hui* in their thirties and older, dairy products symbolized a high standard of living. Mingxin remembered craving milk as a child, when little was available and his family was too poor to buy it ... [since] 1978, China's cows have been "science modernized" (*kexue xiandaihua*) and so dairy products were both readily available and affordable. [Gillette 2005:111]

By associating milk with athletic icons and Western culture, China's dairy industry hopes to not only generate a new generation with a taste for milk but also build on the success of other foreign foods in Chinese cities. For example, McDonald's and Kentucky Fried Chicken have a strong presence in China, and both market their foods heavily to children. Restaurants serving the dietary needs of urban-

ites become a medium for exposure to new Western foods. As children in China are transformed into consumers with valid demands (Yan 2005), they (and their parents, esp. their mothers) become targets of milk advertising and promotion. This is further legitimated by governmental support of the dairy industry, school milk programs, and health messages about the benefits of milk for child growth, national well-being, and "population quality." But it may be the "Western" aspect of milk that is most salient to increasing demand. As Gillette notes with regard to Western factory-produced foods, "through these foods parents hoped to introduce their children to things foreign and equip them to live in an industrialized, technologically advanced, cosmopolitan world" (Gillette 2005:117). That milk might enhance their growth (both physical and intellectual) further consolidates milk's image as a "modern" food and its consumption the means to the "modern/Western" life.

NEW MEANINGS FOR MILK: DOES MILK MAKE YOU SMALLER?

A new kind of advertisement for milk has appeared in the past five years in the United States, one that seems at odds with standard "drink milk and grow" message. Dr. Phil (McGraw) announced that "drinking milk can help you lose weight" (Milk Processor Education Program n.d.c). The new "3-a-day" and 24/24 (24 ounces of milk every 24 hours) slogans are in wide circulation on the Internet, television, and print media in the United States. At the website www.2424milk.com, a new site targeting adult women, a slogan proclaims: "Milk your diet; lose weight! Including 24 ounces of lowfat or fat free milk every 24 hours in a reduced calorie diet provides calcium and protein to support healthy weight loss." At www.bodybymilk.com, a new Internet site with an urban-chic design specifically aimed at teenagers, the claim is made that milk contains protein that makes you "leaner."

It is difficult to view this new promotion independent of the aging of the population in the United States as well as the current widely publicized public health concerns about rising obesity among adults and children in the United States. Milk has transformed itself to fit into this milieu by featuring a new way in which it is a special food, one that "does a body good" in a new currency. In a public health context rife with dire warnings about the child obesity epidemic, messages about milk promoting growth in body size may no longer be viewed as unequivocally positive. Growth can come to be viewed with more ambivalence as alarms are raised, as in these Internet headlines: "American Waistlines Continuing to Grow"; "Kids and Obesity: A Growing Problem"; "Obesity in America: A Growing Threat"; or "Big Children, Big Problem."

The transformation of milk as a food for growth to one promoted for weight loss is not necessarily contradictory. Milk may still be positively evaluated as a food associated with growth in height, and height is still valued in the United States (Fox 2005). Weight, however is an entirely

different matter, with ideal body weights well below the current norm. Furthermore, weight follows a clear class gradient in the United States. Several recent studies confirm higher rates of obesity and overweight among impoverished households and also among ethnic minorities (Miech et al. 2006; Ogden et al. 2006). In contrast, height is positively correlated with income (Bogin 2001). Class differences in milk consumption do not explain this gradient in height. Neither milk consumption nor its effect on height varies by economic status (Wiley 2005). Regardless, the ideal U.S. body shape and the ideal successful U.S. citizen is tall and lean, and milk can now provide both dimensions of that body type.

It remains to be seen how effective this campaign will be in increasing milk sales and consumption, and there are reasons to believe that it may not be a marketing (or weight loss) success story. First, the milk and weight loss connection does not have the same intuitive basis that the milk and growth linkage does. Even Michael Zemel, who was awarded the patent for the health claim that calcium or dairy products can prevent or treat obesity, conceded that the connection seems "pretty outrageous" (Schardt 2005). U.S. citizens had just come around to recognizing milk as a high-fat food and gradually switched to lower fat milks: to now consider milk as a food for weight loss may be too much of a stretch. Second, this new message ends up being just one more in a series of messages chiding U.S. citizens to drink more milk because it is "good for you." Indeed, one of the motivations behind the "got milk?" advertising campaign was that the earlier advertising slogan "milk does a body good" just was not sufficiently compelling to a demographic that already believed that: over 90 percent of U.S. citizens already "knew" that milk was "good for them" in some way (Manning 1999) but this knowledge did not necessarily make them want to drink it. Despite attempts to make it "fun" or "hip," milk remains a drink that many feel they "should" consume rather than one that they like to drink. Promotions extolling milk's health virtues most often fall on deaf ears in a context in which more people eat away from home and are thus able to choose "fun" food and drinks from a menu.

Last, the evidence on which claims about milk consumption and weight loss are based is limited. Zemel's published studies only involved 46 people on the "dairy diet" (Schardt 2005). Other studies have found that substituting dairy products for other nutrient-rich foods did not produce greater weight loss (cf. Trowman et al. 2006 for a review and meta-analysis). Furthermore, greater milk consumption among children has been linked to weight gain, rather than weight loss, an effect driven by the calories in milk (Berkey et al. 2005). This has led at least one author to predict "the beginning of the end for the dietary calcium and obesity hypothesis" (Clifton 2005). Given the numerous scientific investigations into the modifiable factors that influence weight loss, claims that dairy products enhance weight loss are likely to be subject to closer scrutiny than those linking milk to height.

With regard to China, it is unlikely that any claims about milk and weight loss will be compelling for most Chinese citizens at present, although with increases in obesity among urban children ("China's little emperors" [Jing 2000]), it may gain some traction (Guldan 2000). For now, growth is good in China, and milk has become a new medium for facilitating that growth among individuals, the "muscular" economy, and the nation-state.

CONCLUSION

Anthropological discussions about milk drinking have largely been stories about human variation (Durham 1991; Wiley 2004) or, as Marvin Harris put it, contrasts between the "lactophobes" and "lactophiles" (Harris 1985). As milk has become a globalized commodity, both traded among and produced in countries that heretofore had not had substantial dairy industries, that story is no longer adequate. The "lactophobes" have become the "lactophiles," and the "lactophiles" have become less enamored of their preferred drink. This is less of an inversion than a homogenization, as milk intake is still much higher in traditionally "lactophilic" countries. It has also occurred despite population differences in lactose digestion. Why are some willing to endure gastrointestinal upset to drink milk while others who easily digest milk shun it?

In China, milk has become the quintessential modern Western drink, identified with populations with economic strength, athletic success, and the means to make up for past "growth deficits." Milk also began its spread as an urban drink in the United States, but there it has retained the status of a more traditional drink, and current promotion efforts represent attempts to update its image to a more modern drink suitable for weight-conscious adolescents and aging adults, especially women. Thus, although the biology of milk digestion may be genetically "fixed," the meanings of milk are anything but. As it becomes a more globalized commodity, milk is transformed both symbolically to fit local ideologies, especially about both individual and population health, and physically to fit local biologies and current concerns about them.

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NOTES

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1. Note that although Table 3 shows a clear decline in milk consumption, Figure 1 shows that consumption has remained flat. The data in Figure 1 are overall consumption, not per capita consumption. When population growth is accounted for, per capita consumption goes down. Further, Table 3 is based on surveys of individual consumption, whereas the data from which Figure 1 is drawn derive from industry sources, suggesting that total milk purchases have been flat but actual consumption has declined.

2. What is striking is that at no time between 1970 and 2004 did U.S. citizens consume even one serving of milk per day, which is well under the three servings of dairy products recommended in the U.S. dietary guidelines (U.S. Department of Health and Human Services and USDA 2005).

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Like an Extra Virgin

ABSTRACT In this article, I track the contemporary possibilities for the global circulation of extravirgin olive oil. Recent technoscientific discoveries about the health benefits of extravirgin olive oil combine with narratives about olive oil's "ancientness" and "naturalness" to make it a very successful food commodity in an era of global concern about the risks of "industrial" food. "The Mediterranean" has emerged as a culture area that is defined by food in two realms: in a scientific register ("the Mediterranean Diet") and in contemporary gustatory discourses of distinction that imagine "the Mediterranean" as a site of delicious, "real" food as opposed to the industrial, processed food of the North Atlantic. [Keywords: olive oil, food commodities, "the Mediterranean," discourses of distinction, production]

ACCORDING TO AN ancient Greek myth, Athena, the goddess of craft and artisanship (*techne*), competed with Poseidon, god of the sea, for the namesake of the city of Athens: Poseidon offered only a salty spring whereas Athena offered the olive tree. Athena's gift seemed to be more persuasive to the Athenians, for it provided not only olives but also olive wood, for quotidian furniture, kingly crowns, and weapons, and olive oil, the "liquid gold," for eating, curing, cleansing, illuminating, and anointing. There could hardly be a more appropriate gift from a goddess of domestic arts. Yet Athena's gift to humankind depends on *techne* to make something useful and functional from it: olives must be cured before they are edible; wood must be carved and finished; and olives must be crushed and pressed to obtain the "liquid gold."

The association between craft and craftiness is embodied in Athena. She is also the goddess of a male *techne*: strategy in war. Odysseus is her favorite hero, and he is the guileful one who uses craftiness over force to win. Indeed, in the narrative frame of the *Odyssey*, the olive tree is the unifying element that binds the fantastic world of the "stories" and the prosaic civilized world (*oikoumene*). Although strange and fabulous lands are opposed to civilized ones by the absence of agriculture in the former and its presence in the latter, there is one specific tree present both in the world of the "stories" and in the *oikoumene*—the olive:

The tree of whose wood Odysseus built his bed, the fixed point of his home (23.183–204). And in fact the olive is on a number of occasions the means of Odysseus' escape from danger. It provides the stake with which he bores through the Cyclops's eye; and the handle of the axe with which he builds his boat. [Vidal-Naquet 1981:87]

The olive tree is also the cornerstone of the domestic household (*oikos*) and a sign of civilization, the inhabited world of arable land and agriculture. Thus, the olive tree is both the sign of "feminine *techne*," the civilized and civilizing domestic crafts, and "masculine *techne*," craftiness on the battle field. Athena, who is Odysseus's tutelary goddess as well, is the goddess of both, and the olive tree is her gift to humankind.

I start with this account of the mythology of olive oil to mime contemporary accounts of olive oil, both scientific and culinary, which also tend to start with olive oil's mythic past. I use Athena as an entry point into an exploration of three dimensions of contemporary olive oil production, consumption, and circulation. First, I examine how an emerging notion of "the Mediterranean" as an imaginary space defined by the culinary and gustatory has affected the circulation of olive oil. Second, I consider how part of this notion of "the Mediterranean" opposes the Mediterranean to Northern Europe as Antique to Modern, and craft production against industrial production. Consequently, representations of olive oil as a "natural" fat and genealogies of a seamless, unchanging since antiquity, "techne" style of production often erase the actual mechanization of olive oil production. Finally, I explore how, in the process of establishing the "extravirgin" oil, the technoscientific (chemical) becomes entwined with discourses of distinction (*organoleptic*).

A NEW UNITY OF THE MEDITERRANEAN?

For both the ancient Greek geographer Strabo and noted French historian Fernand Braudel, the olive tree rather than the sea itself is the distinguishing feature of the

Mediterranean region. The International Olive Oil Council, the organization responsible for regulating and promoting the worldwide production, circulation, and consumption of olive oil, published a book entitled *The Olive in Mediterranean Cooking* (March 1994), which features a map of the Mediterranean region, marking space not by country but by olive varietal.¹ Under this definition, even regions far from the sea, such as the interior of Tuscany and Umbria, are considered Mediterranean because of their olive trees. In anthropology, the delimitation of the region known as “the Mediterranean” focused on the particular cultural values that were posited to unite the region, particularly a focus on the chastity of women and the implications of their comportment for male honor. However, after the publication of J. G. Peristiany’s influential *Honour and Shame: The Values of Mediterranean Society* in 1966, anthropologists immediately began to debate whether or not there was such a “cultural entity” as the Mediterranean (see Gilmore 1987; Pina-Cabral 1989). Some, like Jane Schneider (1971), found the originary unity in shared ecological conditions, concomitant modes of subsistence, and political and social organization. Aside from a resurgence of the notion in ethnomusicology (and, indeed, one does find antiphonal olive-picking songs all over the Mediterranean; see Magrini 2003), the concept of “the Mediterranean” is the most salient not in the academy but, rather, in medicoscientific and culinary discourses.

Specifically, this region has been defined of late by technoscientific discourses that propose that “the Mediterranean Diet” is superior for health as well as an aesthetically pleasing and desirable culinary realm; this aesthetic is amply represented in cookbooks, magazines, cooking shows, and the like. Olive oil is central to both. I argue that this positive imaginary of the medicoscientific and the gustatory aspects of the diet-that-stands-for-a-region profoundly affect the way extravirgin olive oil circulates in the contemporary world. I stress here that it is estate-produced extravirgin olive oil that is perceived to be of dietary and culinary-aesthetic value.²

The now-ubiquitous “Mediterranean Diet” was not, like olive oil, envisioned as a gift of a goddess but, rather, a gift of science—albeit one with its own considerable mythology. In 1948, the Rockefeller Foundation funded a study of 765 families on Crete to evaluate the postwar standard of living; 128 of these families were chosen for daily inspection to evaluate food intake. This research strategy, which might have warmed the cockles of a cultural ecologist’s heart, involved the inspecting of cooking practices, the recording of every bite put in everyone’s mouth, and the weighing of food consumed and even food waste (Visser 2004:2). Although it was published originally in *Crete: A Case Study of an Undeveloped Area* (Allbaugh 1953), this study still has ramifications today: when later studies found that Greeks had low incidences of heart disease, the dietary information in the Rockefeller report was claimed as an explanation. The prominence of the “good” fat olive oil in the Greek diet was portrayed as the linchpin of what became known

as the “Mediterranean Diet.” When heart disease began to appear almost endemic in North America in the 1970s (at least among middle-class males), books on the “Mediterranean diet” began to literally “pour from the presses” (Visser 2004:3), and olive oil, its star, received an enormous boost. Indeed, olive oil consumption in the United States went from 64 million pounds in 1982 to 250 million pounds in 1994 (Rosenblum 1996:273). The Italians, recognizing a good market opportunity when they saw one, quickly replaced Greece as the signature Ur-Mediterranean country and started exporting and importing olive oil in even greater quantities than they had in the early 20th century when olive oil-importing companies acted as the legitimate fronts for the Mafia’s less salubrious businesses (Rosenblum 1996:138).³

The “ancientness” of olive oil is one of its potentially significant intrinsic qualities, or Peircean “qualisigns,” which is often invoked as a guarantor of the “rightness” of today’s scientific claims about the benefits of olive oil.⁴ The fact that Hippocrates, the man widely touted as the “father of medicine,” was a firm proponent of the therapeutic qualities of olive oil was noted in the introduction to a highly technical manual dealing with all manner of olive production, including the chemical composition of various oils (Kiritsakis 1998:3). Nutritionist Jean Barilla claims: “Knowledge of the health-giving and healing properties of olive oil are just now opening the eyes of the modern medical community. *Where ancient wisdom and cutting-edge science meet, we have found a pot of gold . . . green gold*” (1996:11, emphasis added).

New scientific research seems to verify Hippocrates’s faith in olive oil almost daily: scientific research claims that olive oil is proven to be helpful in the prevention of heart disease, breast and colon cancer, and Type II diabetes. A recent *New York Times* article (Burros 2004) announces, “Olive Oil Makers Win Approval to Make Health Claim on Label.” In the 1990s, olive oil researchers cited its antioxidant and other chemical qualities as healthful, including one such chemical that probably only a few are aware of: namely, “terpenic alcohols, which assist in the fecal excretion of cholesterol through increased bile acid secretion” (Wahlqvist and Kouris-Blazos 1996; see also Krasner 2002:12). Other scientists have proven that pure (now called “extravirgin”) olive oil is high in phenolic compounds: in a recent article, Dr. Perez Jimenez explains, “we think, looking at our results, that the reduction in oxidative stress and the increase in the nitric oxide bioavailability are behind the observed improvement in ischemic reactive hyperemia” (American College of Cardiology 2005). The article, by the American College of Cardiology, decodes the above expert advice for the lay reader as proof that olive oil contributes to positive cardiovascular functioning. The latest in this series of discoveries of olive oil’s salutary qualities is the discovery of a chemical substance in extravirgin olive oil, oleocanthal, which has the same anti-inflammatory effect as ibuprofen. These particular qualities of olive oil cannot be evaluated by individuals experientially but,

rather, require the intervention of technoscientific expert knowledge, which most of us take as authoritative.

Yet more is going on in the contemporary olive oil craze than functional concerns with health. As I note elsewhere, extravirgin olive oil is also a sexy fat (Meneley 2005). Chef and food historian Patric Kuh, in his book *The Last Days of Haute Cuisine: The Coming of Age of American Restaurants* (2001), uses Thorstein Veblen's (1977) memorable and evocative term *aesthetic nausea* to refer to the way in which fats go in and out of favor in culinary fashion: just as the use of butter (as opposed to lard or schmaltz) in haute cuisine signified sophistication rather than farmhouse cookery, butter began to evoke feelings of "aesthetic nausea" when the rustic Italian and Mediterranean cuisines began to pull ahead of haute French for U.S. palates. On the other side of the Atlantic, Elizabeth David's *A Book of Mediterranean Food*, published first in Britain in 1950, described ingredients that were at that time scarcely available in Britain (for instance, olive oil was sold in tiny bottles in drugstores on the laxative shelf). But for David's audience, among them food writer Gina Mallet, "the fact that you couldn't buy olive oil easily, if at all, only made Elizabeth David's book more alluring" (2004:107). Times have changed in Britain: 2006 was the first year that olive oil sales surpassed that of other vegetable oils, according to an article in the *Guardian*, which begins,

Whether you wish to blame Delia, Ainsley or Jaime is up to you, but the verb "to drizzle"—in a culinary as opposed to climatic sense—is now recognized by the Oxford English Dictionary. And judging by the latest sales figures for the UK, we just can't drizzle enough these days. ... This millennia-old Mediterranean staple has come a long way since the days when Britons could only buy it at their local chemist. [Hickman 2006]⁵

U.S. chef Paula Wolfert's influential 1977 *Mediterranean Cookbook* demarcated the Mediterranean not only as a geographic region but as a shared culinary and aesthetic space as well, unified by a primary fat: olive oil. On her website, she writes, "My approach to the Mediterranean is based on a myth—an ideal, shared by many of us, of a robust, simple, and sensual lifestyle far from the madding crowds of our competitive North Atlantic culture" (Wolfert 2005). Wolfert also claims an authenticity for people and food of the region, claiming that Mediterranean food is "real food. ... The real food of real people" (Laudan 2003:290). Ironically, it is Wolfert, an influential "taste maker," who succinctly sums up the imaginaries associated with the Mediterranean, which set the region in imaginary contrast to Northern Atlantic (incl. Northern Europe and North America) and, by extension, to the rest of industrial modernity. That is, we envision a cuisine and an attendant lifestyle that is more authentic and less stressful, more "natural," than the world in which we live. As I argue elsewhere for Italy (Meneley 2004, 2005), these imaginings can be described as a kind of "reverse Orientalism"; like the negative Orientalism regarding knowledge about the Middle East (Said 1979), these positive imaginings have an effect on people's actions in the world,

even though they are not necessarily based on a knowledge of languages and cultures of the Mediterranean.⁶ Having health and gustatory satisfaction as central to the definition of "the Mediterranean" makes it possible to encompass the Muslim Mediterranean in a safe domain, a culinary aesthetic one. "The Mediterranean" becomes a transcendent category, under which the more common Orientalist knowledges—and attendant fears and prejudices about Muslims—can be subsumed or elided.⁷

Olive oil and other olive products are also increasingly popular ingredients in beauty products like soaps and skin creams; once again one finds an intertwining of the scientific and the aesthetic. Writer Vanessa Penna quotes Fernando Aleu, MD, discussing his research on the antioxidant potential of olive leaves, which allowed him to develop an antiaging skin lotion, *Crème d'Olives*: "I've done years of research, but you only need to look at Mediterranean women's skin for proof that having olives in their diet and using them in skin care smooths and refines the complexion" (Penna 2000:142). These imaginings of pleasant, beautiful, and authentic Mediterranean spaces and beautiful people help shape the international olive oil market, as do medicoscientific discourses and technes of aesthetic distinction. Food writer Calvin Trillin implicitly refers to these seemingly contradictory discourses—those of technoscientific and medical and those of gustatory and aesthetic connoisseurship—that so profoundly shape olive oil markets and modes of marketing today. When asked to comment on the scientific research that claims that olive oil contains the same pain killer as ibuprofen, Trillin quips, "It may only be a matter of time before there is extra virgin Advil and first pressing Motrin" (Hotz 2005).

THE "NATURALNESS" OF OLIVE OIL

Olive oil is popularly understood to be a kind of Ur-natural fat, as opposed to an industrial one like Crisco or margarine or fat substitutes like olestra, which is described by noted nutritionist Marion Nestle as the "ultimate techno-food" (2002:338–357). In discourses about fat as a substance, as well as in contemporary food discourses in general of late, "natural" fats are beginning to come back into favor after the recent scare over trans fats; olive oil—sometimes dubbed the "friendly fat" (cf. Barilla 1996)—continues to be the favored among them.⁸ Sometimes technoscientific claims are used to justify olive oil's "naturalness"; as an Umbrian olive oil producer told me, "olive oil is a 'natural' (*naturelle*) fat par excellence because it shares with breast milk the same distribution of fatty acids" (conversation with author, April 17, 2005). Food connoisseur Deborah Krasner states: "Here's where olive oil becomes the hero of this health story: It naturally contains a great variety of antioxidants, and it's high in mono-unsaturated fatty acids. We know it's a safe and nutritious food—it's been in continual use in the human diet since antiquity" (2002:13).

In addition to the antiquity of the olive and its use in the Mediterranean, much is made of extravirgin olive oil's

"natural" qualities when extolling its healthful virtues by contemporary firms vying for a share of the increasingly lucrative olive oil market and by health professionals seeking to promote healthier lifestyles. Although the fact that considerable *techne* is involved in olive production was obvious to the ancient Greeks, there is considerable talk among olive oil marketers and food writers of olive oil as a "natural" substance, full of "natural" goodness—as if it simply flowed from nature itself, like breast milk. For instance, food critic and cookbook author Patricia Wells blurbs the back of Mort Rosenblum's book, *Olives: The Life and Lore of a Noble Fruit* (1996), saying, "We close the book with a renewed reverence for one of nature's most enduring gifts." Even scientists claim the "naturalness" of olive oil as a source of its superiority: "Dr. Perez Jimenez said that olive oil may be superior to seed oils because it is a *natural* juice, pressed from the olives, so it does not go through the type of process need to extract oil from seeds, such as sunflowers, soybeans and rapeseed" (American College of Cardiology 2005, emphasis added).

Food historian Rachel Laudan (2003) argues that in food discourses of late, there tends to be an uncritical extolling of "the natural" as inherently good by those whom she calls "Culinary Luddites." As she points out, many foods are unpalatable, indigestible, or even poisonous in their "natural" state. For instance, olives in their "natural" state are bitter and simply inedible. As Annie Hawes, novice olive farmer in Liguria, notes in her book *Extra-Virgin: Amongst the Olive Groves of Liguria*: "I mentally take my hat off to whatever unbelievably desperate person first discovered the edibility of the olive—I'm sure I would have starved without ever guessing for a moment that the things weren't poisonous" (2001:97).

Even when the considerable *techne* necessary for producing olive oil from bitter and inedible olives is acknowledged, what tends to be highlighted in contemporary promotions of extravirgin olive oil is an untouched and unchanging lineage of olive oil production from the ancient Minoans onward. One is left with the impression that the production process is itself timeless. However, there have been considerable transformations in olive oil technology over time and space. If artisanal production (*techne*) is not exactly natural—and for the Greeks the definition of *techne* was the use of artifice to overcome nature—then at least in its traditionalness and antiquity it stands with respect to modern industrial production as being relatively natural.

Yet there was a major shift in the second half of the 18th century toward the mechanizing of olive oil production. The industrializing of olive oil production was linked to the revitalization of what was perceived to be a stagnating Mediterranean economy (Mazzotti 2004). An explicit alterity between Northern Europe and the Mediterranean was posited, with the North seen as more advanced technologically and economically as opposed to the Mediterranean, which was lagging behind and stagnating (Mazzotti 2004:277). A notable irony is that the increased demand for olive oil at this time, which provided a partial impetus for

Mediterranean economic reforms, went beyond its function as food and as a source of internal light in wick lamps. Indeed, transformations in olive oil pressing technology to produce a higher quality of olive oil were themselves generated by the industrial revolution. Higher quality oil (with a lower acidity level) proved to be the best lubricant for clockworks and also for industrial machinery, the best industrial lubricant available at the time (Mazzotti 2004:278).⁹ Mediterranean olive oil was greasing the wheels of English factories and overall capitalist expansion, a part of olive oil's history that is erased.¹⁰

For contemporary producers and marketers, what is emphasized is the *techne* or craft aspect of olive oil production. Not only is the "ancientness" of olive oil production invoked, but these production "traditions" are presented as being in need of protection from the onslaught of mass-produced olive oil marketed by multinationals. Olive oil connoisseur and promoter Judy Ridgway states: "A phrase which some producers like to include on their label or in their promotional literature to indicate quality is 'traditional method'" (1997:25), in which *traditional* merely refers to the stone wheel that is used to crush the olives. During my research with contemporary producers of estate oil in Tuscany and Umbria, I noticed that although their mills are fully "modern" in machinery, in accordance with EU regulations regarding safety and hygiene, a bow is often made to "techne" style production by retaining the old stone millstones that crush the olives. These millstones are now powered by electricity instead of slave, horse, or water power. The rest of the process is highly mechanized, but "tradition" is often invoked. In promotional material it is the "naturalness" and the "traditional" mode of processing that is foregrounded, the *techne* partially veiling the technoscience. Even genealogical metaphors are sometimes employed. For instance, the owner of a sizeable modern mill in Trevi, standing in the midst of gleaming steel oil tankards, not a terra cotta pot in sight, told me that olive oil was in his veins because his family had been making the exact same oil for 400 years. *Techne* and technoscience are united in the product of extravirgin olive oil, which, rather counterintuitively, is launched onto the market and into the bodies of consumers as a "natural" product.

Most of the oil presses that I visited in Tuscany and Umbria had a museum or a tasting room decorated with the trappings of "traditional" production, like the beautiful "Ali Baba" terracotta pots and the flat ladles that were formerly used to scoop out the oil as it settled in these pots, the circular fiber mats used to press the oil, and olive-picking "combs" and gathering sacks. In a wonderful example from Spain, both human experiential knowledge and the most advanced computer technology are employed to recoup a "traditional" past. Glimpses of the "ancient" were achieved by a Spanish engineer by taking photos of the tower presses and beam presses at the Museum of Oil History in Jaen. To better understand how these presses operated, he included oral testimonies of elderly men who actually participated in the traditional production but also relied on the latest

AutoCAD technology to produce a simulation (Rojas-Sola 2005).

The terracotta amphorae used to transport wine and olive oil in the ancient world, considered by some to be the first commercial packaging (Twede 2002), are now defunct. Despite transformations in shipping technologies, packaging continues to be a very important part of the production and circulation of contemporary extravirgin olive oil. The Avignonesi estate, whose marketer I interviewed in Tuscany in 2000, consciously styled its bottle on the shape of the ancient amphorae, albeit with a flat bottom in conformity to current shipping and storing conventions.¹¹ The nods to tradition and *techne* can be read on the labels of Tuscan and Umbrian estate oils (i.e., oil produced by olives solely from one estate), on which one often finds a sketch of an artisanal mill, a terracotta pot, a grove of olive trees, or a rustic house, in addition to, most importantly, a handwritten expiration date.¹² The handwritten date is particularly important in indexing a specific producer and a high-quality product that will not, unlike some industrial brands that are so highly processed that they contain only a little extravirgin olive oil for color, last forever.

INDUSTRIAL VERSUS ARTISANAL PRODUCTION

One of the most important contemporary food movements that sets up an opposition between industrial versus artisanal production is the Slow Food Movement, started in Italy by Carlo Petrini in 1986, who was appalled when the first McDonald's restaurant appeared in Rome (see Petrini 2001). This movement vociferously opposes industrially produced food: particularly, the name *Slow Food* implicitly points to its bad "other," the classic exemplar of industrial food, *fast food*. In contrast, the Slow Food movement champions artisanally produced food, like artisanal cheeses (as opposed to highly processed and packaged cheeses) and extravirgin estate olive oils, among other "heritage" products. In 2000, the press of the Slow Food movement, Slow Food Editore, published an elegant volume entitled *Extravergine* (Ricci and Soracco 2000), wherein the *techne* of olive production is stressed; the advertisements in the volume include an olive oil with the Chianti Classico DOP (Denominazione d'Origine Protetta) and Laudemio, a consortium of elite, independent Tuscan estates, which, also employing a genealogical metaphor, describe their oil as being as "noble" as their lineages.

Yet the opposition between natural-industrial really reflects a tension between artisanally versus mass-produced olive oil. Despite the fact that industrial technology is employed in the production of olive oil that claims to be artisanally produced, these estate oils oppose themselves to the mass-produced olive oil like that of Bertolli, Colavita, and Carapelli. The latter depend on the "sameness" of taste that is distinctive to brands, so they aim to produce a blended olive oil that remains the same year to year wherever it is sold in its broad international network. Here one finds labels that are as mass produced as is the oil. The connection be-

tween producer and consumer is essentially an impersonal one, albeit one of trust in brand predictability and dependability ("goodwill").¹⁴ As opposed to the generic placeless anonymity of industrial production, whereby olive oil may be bought from many countries or regions and blended until it achieves their signature brand's typical taste, smaller olive oil producers try to find ways to distinguish their product. In the production of estate oils, in contrast, there is the attempt to overcome what Karl Marx described as the severance of the connection between producer and consumer, which he argued was characteristic of capitalist production. Extravirgin olive oil producers accomplish this goal, or attempt to, by achieving a distinctive taste that indexes the particularity of the oil and the identity of the producer.¹⁵ Instead of the erasure of the producer that Marx argued was characteristic of capitalist production, extravirgin olive oil producers try to make the labor invested in the commodity visible; for instance, noting on the label that the olives were "hand-picked."

Another valued guarantor of distinctiveness is achieving a DOP status for one's extravirgin olive oil. For instance, the Italian province of Umbria has its own DOP; to attain DOP status, the oil must be from olive trees planted in Umbria and it must also be bottled there.¹⁶ Within the Umbrian DOP, five distinct underzones are recognized (Assisi-Spoleto, Colli Martani, Colli Trasimeno, Colli Orvieto, and Colli Amerini). Geographical area is highlighted in the requirement that the oil be produced in Umbria, joined by the specific qualities of climate and soil of each of the five regions. The distinct microclimates are held responsible for different varietals and tastes of olive oil. For instance, the warm microclimate surrounding Lake Trasimeno is said to allow for large trees and an unctuous, mild oil in contrast to Assisi-Spoleto, where the trees are half the size and grown in terraces on the sides of the mountains. The piquant taste of this latter oil was, my Umbrian informant assured me, a result of the trees having to "suffer" (*soffrire*) the harsher climate and relatively shallow soil in the terraces. In addition, particular production conventions must be followed (modes and timing of picking and pressing, the amount of heat used in the pressing, and methods of storing both olives and oil). In the words of one olive oil producer, the olives must be treated with *rispetto* (conversation with author, April 20, 2005), which is the notion of "respect" for the olive-guided technological production techniques. For instance, according to one producer, the olives must be pressed with gentle pressure at cool temperatures, without chemical extraction, if one did not want a resulting olive oil that, in his words, tastes like "kitty pee-pee" (conversation with author, April 24, 2005).¹⁷ Another Umbrian olive oil producer produced the following proverb: "Olive oil is like a woman. If you treat her well, she'll give you a good product. If you treat her badly, she'll kick you in the shins" (conversation with author, April 18, 2005).

But proper production practices are not enough: to receive DOP certification, the oil must not only be graded as "extravirgin" but also must receive a grade of seven out of

nine on a taste test, according to one of the official Umbrian olive oil tasters. The designation is valued not only because it gains distinction for the producers, giving their oil a higher profile, but also because it means it can be sold at a higher price and has a much greater chance to be exported outside of the country. The DOP itself might be considered a kind of Latourian hybrid of nature, culture, land, *techne*, technology, and climate. The DOP is patterned on the French DOC. Chaia Heller notes that the French construct “nature” in distinctly social terms as a product of human labor associated with traditional agriculture practice (Heller this issue; see also Heller 2002). Although some scholars like Amy Trubek articulate the possibilities of reviving a “taste of place” (*gout de terroir*) as a means of creating locally “sustainable” food systems, others such as Ruth Laudan argue that another effect of the French Terroir Strategy, as she calls it, is that it is a “brilliant marketing device” (2004:138), something that the Slow Food movement, which has adopted this strategy, describes a little differently, as I discuss below.

DETERMINING “EXTRAVIRGINITY”

“It’s true.” He shrugged. “Lucia wants to be a virgin when we marry, just like her mother. So we had to stop sleeping together until we got engaged.”

Vincent’s statement, apparently illogical, drew no comment from his friends. In a country where literal fervent Catholicism was only a generation away, everyone knew that there were as many grades of virginity in girls as there were in olive oil—which, of course, is divided into extra-virgin (first cold pressing), extra-virgin (second pressing), superfine virgin, extra-fine virgin, and so on, down through a dozen or more layers of virginity and near virginity, before reaching a level of promiscuity so unthinkable that it is labelled merely “pure” and is thus fit only for export and lighting fires.

—Anthony Capella, *The Food of Love*

The above quote from a novel whose central theme is the oft-noted connection between food and sex makes fun of the recent proliferation of olive oil gradations that so confuse consumers, as well as playing on the potential manipulations of “virginal” status that so vex those responsible for ensuring that olive oil is not adulterated or misbranded. Vigilance in purity is as much an issue for food regulators as it is for olive oil producers. For instance, a chemist working for the U.S. Food and Drug Administration states: “Constant development of new and more useful analytical techniques as well as continuous *surveillance* is required to control *adulteration* and mislabeling of olive oil products” (Firestone 2001:179, emphasis added).

“Virginity” is a qualisign of value that is used to characterize both people and olive oil. In women and olive oil, virginity stands for purity. It is perhaps not chance that not only was Athena the goddess of *techne* but she was also a product of a virgin birth, springing from the head of Zeus fully grown and clothed. Moreover, the immortal Athena remains a virgin for all time. Connecting this rich

mythohistorical tradition to his contemporary product, a Greek olive oil producer in a recent advertisement proudly proclaimed his olive oil as “4,000 years old and still a virgin!” (National Post 2002:L19). Even in contemporary olive-producing societies, as I have argued elsewhere, people tend to speak of olive oil in a version of the honor–shame idiom, surveilling their olives through the production process to insure “pure” oil, as they might guard the purity of a virginal daughter (Meneley 2005). I was told by several Italian olive oil producers that if an oil does not achieve an extravirgin designation, they do not bottle it under their own label, metaphorically disowning the “impure” daughter.

It is the *extra* in the extravirgin olive oil that departs from this shared metaphorical space; after all, in the words of one Tuscan olive oil producer, a woman (or a goddess) is either a virgin or she is not (conversation with author, November 15, 2003). “Extravirgin” is a relatively recent designation denoting the highest quality of olive oil. The concrete and imaginary conditions of food production—and *technes* and technoscientific shaping of or interventions in food production—produce entailments on a food commodity’s ultimate exchange and consumption. The term *extravirgin* may evoke an ultrapure supervirgin in the imaginaries of many, but it is also a legal and bureaucratic term now. The International Olive Oil Council (IOOC), a body created in 1956 to regulate and promote olive oil production, established internationally standard criteria for grading to ensure product authenticity and to rank the various categories of oil, which novelist Cappella so cleverly superimposes onto womanly virginity. There are nine official categories to which an olive oil can be assigned, affecting very much how the oil can be marketed and the price it can command.¹⁸

Extravirginity is now determined by a chemical test for acidity level: legally, the term *extravirgin* can only be used to denote an olive oil that has less than 0.8 percent acidity. Extravirginity is also determined by production practices: the appellation “extravirgin” cannot be applied to oil that is produced by a treatment using heat or chemicals. Yet these objective, abstract, and democratic scientific modes of determining extravirginity are not enough. Aristocratic *technes* of distinction and aesthetics intervene in the form of an organoleptic taste test—done by highly trained, official tasters—which is also necessary to determine if an oil can be classified as “extravirgin”; tasters must establish sensorially that the oil has no defects at all. Although the organoleptic test results are couched in such language as follows—“olive oil is classified as extra virgin grade when the median of the defects is equal to 0 and the median of the fruity attribute is more than 0” (Kiritsakis 1998:244)—how one determines the grade is quite a different matter.

Lidia Bastianich, a celebrity chef and cookbook author, argues that “top-quality ‘extra-virgin’ olive oils . . . are pieces of art” (Best Life magazine 2004) appreciated by a rarefied aesthetic sensibility that must be cultivated. In short, extravirgin olive oil is a fat that can be perceived as a work of art, something that cannot be imagined for mass-produced fats like Crisco. In Italy in 2005, I took part in an olive oil

tasting seminar taught by a professional Umbrian olive oil taster. The techné for tasting includes qualities of persons and their purity of intention and body: (1) an orientation of the taster's intellectual capacities (concentration and memory) and (2) the comportment of the taster's body (good health, and untainted by perfumes, deodorants, mints, garlic, cigarettes, or coffee). Discourses of purity also appear in determining the surroundings in which oil should be evaluated. The oil should be tasted in the daytime in a clean, well-aired room with white walls. The olive oil should be poured into a clean, clear, stemless glass, and then held and gently warmed in the palm of one's hand. For visual inspection, one should hold up the glass to the natural light to evaluate the clarity and color of the oil.¹⁹ For the olfactory evaluation, our tutor instructed us to give three to four short sniffs. The gustatory evaluation involves pouring a few drops on the tip of the tongue, tasting it before inhaling it sharply, so that the piquancy registers at the back of one's throat. The oil, despite being oil, should not taste "greasy." Then moralistic evaluations figure in: oil is graded by "defects," such as sourness or rancidity, and "virtues," such as "fruitiness" or "harmonic qualities" when the "perfume, flavor, and tactile sensations are in great equilibrium" (conversation with author, April 22, 2005).

In another aesthetic realm, extravirgin olive oil evaluations in many ways mimic the discourses of haute cuisine, so wonderfully parodied in Russell Baker's "Francs and Beans," in that it is unthinkable to use such a vocabulary of distinction to talk about mass-produced oil.²⁰ However, as in the case of coffee described by William Roseberry (1996), much more influential in olive oil tasting is the discourse of wine evaluations. For instance, the wine term *grand cru* has been adopted to denote single estate olive oils of particular excellence. One of the most successful French extravirgin olive oil marketers, L'Olivier, has included 33 Grand Cru oils from all over the Mediterranean in their list of their New Harvest oils (L'Olivier 2006).

"Wine speak" is a discourse in which connoisseurship is cultivated and demonstrated in the sensory process of seeing, smelling, and tasting the wine but also in the capacity to deploy sophisticated and persuasive descriptions of the wine (Silverstein 2006). Claudia Pharand, the owner of an exclusive Montreal shop selling expensive olive oil, makes this point explicitly: "Getting into olive oil is like getting into wine," offers Pharand, who has a wine cellar at home. "You get into the controlled appellations, you learn the subtle differences in taste by region. So, the mono-variety olive oils are categorized by region" (Latimer 2003). As in the case of wine, in olive oil discourses of connoisseurship, the agricultural, the technoscientific, and the aesthetic are brought together in one field. Silverstein's evocative phrase "boutique agriculture" (2006:12) describes much of what the Slow Food movement promotes, but it is a term that keeps class and hierarchy in the frame, something that Slow Food elides or denies. Surprisingly, for a movement that arose from the Italian left, there is remarkably little discussion of class in the Slow Food movement (Laudan 2004; Leitch

2003; Meneley 2004), although Slow Food supporters deny accusations of elitism (cf. Kummer 2002; Parasecoli 2003).

CONCLUSION

Although not all North Atlantic consumers may be aware of the Slow Food movement, the concerns that inspired the movement also underpin many contemporary food concerns related to the industrial production of food: the dangers of *E. coli* that arise from meat-slaughtering technology, the effects of fast food on obesity, and the politics of genetically modified food. As Jack Goody (1997) demonstrates, industrial food facilitated European expansion in the days before refrigeration; when refrigeration became more accessible, as did food in general in the postwar period, industrial food took a class slide in North America and Northern Europe. Some food historians, like Ruth Laudan, argue that we seem to have had a collective amnesia about how industrial food actually made food safer and its supply more secure (Laudan 2003), and she suggests that gastronomy is only possible under conditions where food accessibility is assured (Laudan 2004). When people are confident that they have enough to eat (or in the case of some North America, more than enough), questions begin to be raised about what might have been lost in the transition to industrial food in terms of artisanal techniques and tastes and the confidence that comes from knowing the origin of one's food.

It was when industrial food became readily available and cheap—and viewed with some derision and suspicion—that "the Mediterranean" became the positive Other for the North Atlantic, largely defined in terms of food that was imagined to be artisanally, instead of industrially, produced: food that was healthful, aesthetically pleasing, and requiring of a discerning palate that becomes part of what Pierre Bourdieu (1984) calls discourses of "distinction." The opposition between the North Atlantic and the Mediterranean is one of technoidustrial superiority and techné-aesthetic superiority. For North Atlantic dwellers, knowledge of the Mediterranean techné-aesthetic distinctions is part of an upper-middle-class "habitus." Instead of the generic readily available food items, "boutique cooking" is valued, in which each ingredient has a traceable origin.

Even though part of the Mediterranean is Muslim—long considered Europe's despised Other and now depicted as the troubling Other within (cf. Asad 2003:159–180)—the Muslim Mediterranean can be encompassed or elided through the rubric of "Mediterranean cuisine," which can be consumed as delicious and healthy food without reference to religion and politics. Just as class politics get erased in the Slow Food movement, so do regional and religious politics in discourses about Mediterranean cuisine. These are imaginaries, of course, but ones with real consequences for the way in which extravirgin olive oil can travel the world.

In the contemporary world, there is no doubt that the healthful aspects of the Mediterranean Diet and aesthetic appeal of the Mediterranean as an imagined space—both

unifying different orders of qualisigns of antiquity, naturalness, and artisanal techne of distinction and tradition—shape how olive oil flows globally. And yet the imaginary of Mediterranean cuisine as a kind of desirable culinary alterity depends crucially on an implied opposition with a reference point somewhere to the north and west, lands typified by the ancient geographer Strabo as the lands of barbaric others who subsisted on cuisines typified by butter and beer as opposed to olive oil and wine. In the modern geographic imaginary, the boundaries of Europe are ever shifting geographically and rhetorically, and the Mediterranean stands as one of Europe's imagined others, an antique classical pagan land straddling as noted above the boundaries of relative newcomers, Christendom and Islam.

But the Mediterranean does not merely stand to Europe as backwards periphery to industrial core, as European classical antiquity to European modernity (Herzfeld 1987). Rather, it may be seen as a semiperiphery with a rich cultural and aesthetic capital as opposed to a core with a rich endowment of both scientific and material capital. It is this relationship of partial identity and partial alterity that is figured in the opposition between artisanal techne of aesthetic distinction and industrial technoscience. Even the determination of a single qualisign, "extravirgin," has technical, scientific, and aesthetic aspects. The diagnosis of extravirginity partakes of purely objective analysis (chemical), traditions of production (techne), and the discursive connoisseur "techne" of distinction, the subjective appreciation by experts with "taste": ultimately, there is more to being an extravirgin than being pressed for the very first time.

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NOTES

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1. The council itself proposes that olive oil is a kind of culture carrier: "One fact is certain: the expansion of the olive tree beyond its home area moved hand in hand with the spread of culture from East to West" (March 1994:5).

2. Numerous studies claim that the health benefits of the polyphenols and antioxidants are only present in extravirgin olive oil. As I elaborate further, mass-produced oil cannot operate in the same way in terms of showing culinary distinction.

3. As an anonymous AA reviewer noted, it is notable that Italy replaced Greece as the signature Mediterranean olive producer, given the prominence of Greek mythology and medicoscientific, mythology-based research on Crete in anchoring narratives of olive oil's current success. See Rosenblum (1996) for an illuminating discussion of the rivalry between various olive-producing countries. For example, consider the Spanish: despite being the largest olive oil producers in the world, they are eclipsed by the Italians who are the most successful marketers, buying up the excess oil from other parts of the Mediterranean and noting on the label "Bottled in Italy" rather than "Produced in Italy." Even within Italy there are rivalries: I was asked indignantly by a Puglian olive oil producer why I went to Tuscany to study olive oil when only two to three percent of Italian olive oil is produced in Tuscany, as opposed to Puglia, which is the largest oil producer (see Meneley 2005 for further discussion).

4. My use of the term *qualisign* is guided by Webb Keane's (2001) reading of Charles Peirce.

5. Leo Hickman is referring to the British celebrity chefs Delia Smith, Ainsley Harriott, and Jaime Oliver, all of whom are so well known that no last names are necessary.

6. Indeed, Wolfert's assertion that the Mediterranean can be a refuge from the competitive North Atlantic culture reveals an unfamiliarity with the agonistic aspects of social interaction in the Mediterranean described in great detail in the anthropological literature (cf. Campbell 1964).

7. Arjun Appadurai (1988:21) makes a similar argument for the transcendent category of "vegetarian," under which various national cuisines can be partially subsumed to appeal to U.S. markets for which it is a salient category.

8. It is interesting to see how perceptions of "healthy" fat—and how they have been ratified in technoscientific research—have changed over the last century. With the introduction of the notion of "calories" and child health, Crisco was promoted as a way of getting children (esp. girls) to eat more fat to help them grow (Neil 2002:306). Such a suggestion is hard to imagine now, given contemporary concerns about trans fats, of which Crisco was the exemplar, and childhood obesity in the Northern Atlantic countries.

9. Massimo Mazzotti continues, "Because of its viscosity and oiliness, olive oil worked extremely well under pressure: it maintained coefficients of friction between 0.07 and 0.08 between wood surfaces, metal surfaces, or a combination of the two. This meant that, given the relatively low rotational speed of English machinery before the turn of the nineteenth century, olive oil could endure great stress without decomposing" (Mazzotti 2004:292).

10. Obviously, this section owes inspiration to Sidney Mintz's (1985) groundbreaking work on the taste for food commodities like sugar and unequal consequences of industrializing production. Another notable work is Susan Terrio's (2000) on craft production of French *grand cru* chocolates.

11. The ancient amphorae came to a point at the bottom, which facilitated stacking in ships for transport. When off-loading the cargo, the amphorae would be stuck in the sand to keep them upright.

12. Fine olive oil, unlike fine wine, does not improve with age and should ideally be consumed within two years of its purchase. This particular property of olive oil is of immense concern for extravirgin olive oil producers seeking markets.

13. In a book published in 1996, Rosenblum describes the Laudemio consortium as the first *grand cru* of olive oil (1996:111).

14. See Paul Manning (this issue) for a discussion of the consequences of brand unpredictability in postsocialist Georgia. See also R. E. Moore (2003) for an insightful discussion of branding practices.

15. I elaborate this point in Meneley 2004.

16. My Umbrian olive oil-tasting tutor, who was one of the olive oil judges for the assignation of the DOP, was here referring to the rather widespread practice of buying up oil from elsewhere and bottling it under Italian labels.

17. Cold extraction was opposed to hot extraction with chemical refinements, which one Californian olive oil expert likened to

petroleum processing, stressing that the oil produced by the latter production method was so far from nature that it could hardly be considered food.

18. Obviously, the implications of the IOOC's activities are much more multifaceted than I can address here. However, one can see the themes of "ancientness," "naturalness," and "technoscience" in the following statement from their website:

By coordinating national production and marketing policies for olive oils and table olives, adopting rules and standards to ensure product *authenticity* and implementing multidisciplinary activities in the fields of agriculture, technology, science and information, the Council has become the linchpin of any multilateral activity aimed at *defending and promoting* the olive tree and its produce. ... The fact that the prestige of olive oil is growing stronger by the day far beyond its Mediterranean borders *confirms that our ancestors were right*. At the same time it augurs a new lease of life for this *age-old tree* and encourages the entire olive community to continue working for all those who earn their livelihood from olive farming. [International Olive Oil Council n.d., emphasis added]

19. In contrast, the Californian Olive Oil Council judges insisted that, for tasting, one had to use dark blue glasses so that the color of the oil cannot impinge on the evaluation of the taste and smell.

20. Baker describes his peanut butter and banana on a graham cracker as "pâté de fruites de nuts of Georgia," implicitly drawing our attention to the fact that one does not use this language of distinction to refer to "industrial" food (2003:43). Monty Python's spam sketch where a waitress announces one of the specials as "Lobster Thermidor aux Crevettes with a Mornay sauce served in a Provencale manner with shallots and aubergines garnished with truffle pâté, brandy and with a fried egg on top and spam" plays with this same theme (see Monty Python 1975).

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The Holy Spirit in the Household: Pentecostalism, Gender, and Neoliberalism in Mozambique

ABSTRACT The recent expansion of Pentecostalism and independent churches in Africa has generated growing interest among social scientists. This attention parallels a renewed interest among Africanists on witchcraft and occult activities, also believed by many to be increasing. Some suggest the two trends may be related, but it remains unclear how and why. Drawing on a study of Pentecostalism and health in the city of Chimoio, Mozambique, in 2002–03 that focused on attitudes toward recent social change, we argue that structural adjustment economic reforms have deepened economic inequality and exacerbated household stresses that affect men and women differently. Women increasingly seek spiritual help for reproductive health problems from Pentecostal churches, whereas men disproportionately pay traditional healers to engage “occult” practices to manage misfortune related to employment. The increased resort to both spiritual resources reveals social distress caused by economic adjustment, with important implications for health programs. [Keywords: Pentecostal, African Independent Churches, Mozambique, inequality, neoliberal]

ALTHOUGH FAITHS INFLUENCED by Pentecostalism, including many African Independent Churches (AICs), have constituted important currents of religious life in many areas of Africa for nearly a century, their expansion in the last two decades—especially including the increased conversion of poor women—has been the most rapid, extensive, and remarkable.¹ In recent years, several volumes and review articles have appeared on the phenomenon that struggle to explain the fervor, intensity, and scale of this vast conversion in Africa and the developing world (Coleman 2000; Corten and Marshall-Fratani 2001; Cox 1995; Jenkins 2002; Meyer 2004; Robbins 2004; Van Der Veer 1996). The growing interest in Pentecostalism and its diverse manifestations across the continent parallels and sometimes intersects with a renewed interest among Africanists in witchcraft and occult activities, also believed by many to be increasing (Comaroff and Comaroff 1999; Geschiere 1997; Moore and Sanders 2001; Sanders 2003; Smith 2001). Anecdotal research on witch-finding practices, moral panics created by shocking media reports, and general impressions among field researchers suggest heightened anxiety about witchcraft in many areas of Africa. As Todd Sanders states, “Predictions of modernization and globalization theorists notwithstanding, African witchcraft, sorcery,

and other ‘occult economies’ are reportedly on the rise, not decline across the continent” (2003:339).

Some of the recent literature has suggested that the two trends may be related, but how and why remain unclear (see, e.g., Meyer 1992, 1998b, 2004:461). Traditional spirit or occult practices and Pentecostalism collide most directly in African communities around the healing activities and spirit ideologies that both deploy as their central idioms of social distress. Pentecostalism attracts most members through healing and derives much of its energy from the vilification of traditional healers, often labeled as “witch doctors” by pastors, and the demonization of traditional African spirituality more broadly (Daneel 1992; Kiernan 1997; Laurent 2001; Maxwell 1995; Meyer 1992, 1998a, 1998b, 2004). Unlike the Catholic Church, the AICs and Pentecostals strictly prohibit any engagement with traditional spiritual practices. One of the most attractive dimensions of Pentecostalism for new members is its notion that the “Holy Spirit” can provide lasting protection from malignant spirits believed to be managed and sent by traditional practitioners.

Mozambique is an especially valuable site in which to explore these relationships because it has experienced a rapid expansion of Pentecostal churches and AICs over the

last decade in the central and southern regions of the country. In most cities, Pentecostals and AICs together constitute the single largest religious affiliation (Instituto Nacional de Estatística 1999). The findings presented here draw on data from a recent study of the relationship among Pentecostal popularity, health, and social attitudes concerning recent socioeconomic change in the Mozambican city of Chimoio in Manica Province. We argue that church popularity, especially among poor women, parallels a widely perceived increase in men's utilization of occult practices to manage misfortune in the market economy and that both increases have been propelled by growing social inequality and related intrahousehold gender conflict intensified by recent economic restructuring. Neoliberal reforms implemented through a World Bank and International Monetary Fund-sponsored structural adjustment program (SAP) that promoted the privatization and contraction of social services in Mozambique actually worsened economic inequality and placed new stresses on poor households in ways that affected men and women differently. In the context of growing socioeconomic differentiation, whereby men increasingly earn and control most household income, the churches appear to provide a uniquely effective way for women to feel protected and to address misfortunes specific to the vulnerabilities created by the deepening inequalities within Mozambican communities and households.

GLOBALIZATION, NEOLIBERALISM, AND OCCULT ECONOMIES

Pentecostalism, especially in its manifestation among AICs, has been interpreted in the past as somehow bridging the transition to modernity among poor urban migrants (Sundkler 1961) and has been more recently explained in relationship to the political economy of apartheid (Comaroff 1985; Schoffeleers 1991) that kept peasant-proletarians straddling the modern and traditional worlds. With the end of apartheid, "globalization" has emerged as a new explanatory paradigm because it is believed to bring modernity more rapidly to Africa through expanded "global flows" that increase exposure and access to global media, new labor markets, and consumer goods (see discussions in Corten and Marshall-Fratani 2001; Marshall-Fratani 1998; Meyer 1998a; Meyer and Geschiere 1999; Robbins 2004). Some argue that the popularity of Pentecostalism, especially in its "prosperity theology" variants in West Africa, reflects a desire for globalizing modernity and is defined by its demand that adherents "break with the past" and tradition (Corten and Marshall-Fratani 2001; Meyer 1998a, 1998b).

However, we here contend that Africa's primary experience of globalization processes has been through SAPs. The social costs of these neoliberal reforms have fallen on poor women through reduced access to money and affordable food, land, and health services, all of which has resulted in increased vulnerability to HIV-AIDS by driving more women into transactional sex (Lewis 2006; Poku 2006). Although it is much harder to measure or con-

firm participation in witchcraft activities than that in Pentecostal churches, it is argued by theorists such as Peter Geschiere (1997), Jean Comaroff and John Comaroff (1993, 1999, 2000), Daniel Smith (2001), Henrietta Moore and Todd Sanders (2001), and Pierre-Joseph Laurent (2001) that an increase in witchcraft activities, or "occult economies" to use Comaroff and Comaroff's phrase, reveals how local spiritualist-occult practices have responded to a new specific modernity of stark disparities and insecurity that neoliberalism produces. As Dirk Kohnert writes, "Belief in witchcraft may be a reaction to an increasing 'conflict-producing potential' caused by processes of social differentiation in the context of evolution of a market economy and 'modernization' of economy and society" (1996:1348).

GENDER, CLASS, AND INTRAHOUSEHOLD INEQUALITIES

Structural adjustment's impact on women differs from its effect on men in ways that reshape household relationships. In many African households, including those in Mozambique, survival has long relied on both male waged work and female subsistence production, an economic logic that explicitly framed the southern African colonial migrant labor system and Grand Apartheid (see Bujra 1986; First 1983; Meillassoux 1981; Wolpe 1972). Because men and women survive in "separate spheres" economically (Carter and Katz 1997; Dwyer and Bruce 1988; Pfeiffer 2003), they experience structural adjustment in sharply divergent ways in these divided households. Men may benefit from free market economic reforms through waged work, cash-cropping schemes, and land access; whereas women benefited more directly from the social services, food subsidies, and safety nets that were eliminated by SAPs (Cliff 1991; Marshall 1990; Pitcher 2002; Sheldon 2002; Turshen 1999). As access to money has become more crucial for survival under SAPs, control of cash income provides even greater intrahousehold bargaining power to male wage earners, while women remain confined to domestic subsistence production. In Mozambique, the explosion of sex work over the 1990s was perhaps the clearest sign of household distress and women's specific economic vulnerability to the adjustment economy (see also Pitcher 2002; Sheldon 2002; Turshen 1999). Although clearly patriarchal, Pentecostal churches constrain certain male behaviors and affirm the importance of men's support to their families (Robbins 2004:132). Literature from Latin America has been the most instructive in highlighting the intersection of broader social inequality created by neoliberalism with local intrahousehold disparities in explaining Pentecostalism's draw (Brusco 1995; Finkler 1985, 1994). For example, Elizabeth Brusco (1995:135) argues that in privatizing Colombia, evangelicalism can be seen in part as a "strategic" women's movement aimed at altering sex role behavior to redirect male support toward household prosperity.

In these approaches, inequality contributes to competitive, insecure, and hostile social environments in which

conflicts are revealed and expressed through spiritual afflictions that require spiritual remedies. It is argued by some that Pentecostal ideas are so popular now in part because they respond to these occult threats, often recast in Christian imagery as Satanic, by invoking the Holy Spirit's protective powers (see Daneel 1992; Geschiere 1997; Meyer 1992). However, we also suggest that the "conflict-producing potential" of the market, to use Kohnert's phrase, affects men and women differently because they are positioned differently in that market; they often experience the related spiritual perils and seek spiritual treatment in contrasting ways. These differences are essential to understanding why so many women now seek help from churches for reproductive health problems and increasingly avoid traditional healers, whereas many more men apparently pay for occult practices to manage challenges related to waged work.

In spite of the growing interest in these potential associations, few studies in Africa have attempted to assess social environments by measuring community-level attitudes about changing social conditions. Data on Pentecostal and AIC demographics in local settings, such as the city of Chimoio in Manica Province where this research was conducted, are also needed to more accurately measure how attraction to Pentecostalism is distributed within households, across gender, and along gradients of social inequality. Our study attempted to measure whether and how Mozambicans perceive changes in inequality within their communities, households, and social environments during the structural adjustment period and then examined whether there is a relationship between among those perceptions, perceived increases in occult practices, and the Pentecostal conversion experiences of men and women.

METHODS

The study used a mixed-methods approach by combining a quantitative survey, in-depth qualitative interviews, and participant-observation in church and *bairro* (neighborhood) life in 2002 and 2003. There is an inherent tension between the reduction of complex social phenomena into discrete measurable items on surveys and the need for qualitative approaches that provide ethnographic depth and elucidate meaning. Although survey items can oversimplify social life, a survey was used here to fill important gaps in our understanding of church expansion. The growing literature on Pentecostalism in Africa provides valuable ethnographic accounts of church popularity, but there is still strikingly little quantitative data on social attitudes and demographic variables to further evaluate key claims about Pentecostal expansion. The current study used extensive qualitative research to create a more ethnographically accurate survey instrument that could both validate qualitative findings and uncover broader population-level trends. Qualitative and quantitative findings are presented together because they complement and validate one another in relationship to the key argument advanced here. In preserving space to present survey data, ethnographic findings have been con-

densed, and, as a result, some richness and nuance may have been necessarily compromised. However, many of our qualitative findings have been presented in greater depth elsewhere (Pfeiffer 2002, 2004, 2005).

A survey of 616 men and women using systematic random sampling was conducted to identify the range of churches in the community, estimate the level of participation in each faith, gather demographic information, and measure social attitudes using a set of Likert scale questions. The social attitude scales focused on perceptions of changes in social inequality, social environment, household well-being, occult practices, and access to basic services over the previous ten years of economic reform since 1992, when a cease-fire ended a protracted war with South Africa-backed rebels. The survey was conducted in three contiguous peri-urban bairros with a combined population of 21,000; these bairros were selected for their large and diverse populations, which represent a broad demographic similarity to the rest of the city (Instituto Nacional de Estatística 1998).² Trained local interviewers stopped at every sixth household and then randomly selected an adult member for a one-hour interview. The final nonresponse rate was about ten percent.³ (Inverse probability weights for household size were applied to correct for unequal probability of individual selection.)

Perceptions of inequality and social cohesion have been successfully measured using Likert scales by social epidemiologists (Kawachi et al. 1997; Kawachi et al. 1998; Sampson et al. 1997).⁴ Drawing on this work, Likert scale items were developed for the following five themes that attempted to measure perceptions of recent local changes since 1992: (1) social inequality, (2) crime and personal security, (3) social cohesion, (4) intrahousehold conflict, and (5) local spiritual-occult practices. The items were pretested on a sample of 100 respondents. Measures were developed for the first three categories that combined three to six items in creating scales. However, in the main analysis presented here, primarily single-item scores for the community are examined and presented. Scaled data that combined items were used to examine differences in attitudes among religious and other demographic groups.⁵ Survey data were analyzed using SPSS version 13 software (SPSS for Windows 2005).

Pastors in the bairros helped identify 80 other men and women for more in-depth, open-ended conversion narrative interviews. Pfeiffer, the first author, also attended numerous church events, meetings, healing sessions, baptism ceremonies, and traditional healing sessions.

RESEARCH SITE

The city of Chimoio has witnessed an especially widespread and rapid expansion of Pentecostals and AICs since the early 1990s. Portuguese authority and the Catholic Church were closely allied in the colonial conquest of Mozambique, and AICs and Pentecostal churches have long been viewed suspiciously by authorities. After independence in 1975, the new socialist regime led by the Mozambique Liberation Front (FRELIMO) was soon plunged into a

protracted conflict with South Africa- and Rhodesia-backed rebels who sought to destabilize the country through terror in the countryside and attacks on government infrastructure. The war led to large-scale population displacement throughout central Mozambique, and thousands died. The city of Chimoio swelled with *deslocados* (internally displaced populations)—growing from about 50,000 to 170,000 people—who fled from rural areas. Negotiations finally led to a cease-fire in 1992 and elections in 1994, which FRELIMO won. During the conflict, however, Mozambique was also pressured to adopt a structural adjustment program in 1987, and by the early 1990s the country had embraced free market economic reforms. As the conflict ended, economic activity was reinitiated, and many of those who had migrated to Chimoio began to move back to rural areas they had fled, and some remained in the city. The traumas from war and related displacement are important factors to consider in examining the postwar growth of Pentecostal churches and AICs, and both the survey and the qualitative methods attempted to assess the impact of the conflict on conversion. Based on available data, there was very limited expansion of churches during the war, but with the end of the conflict proselytizing intensified and church expansion accelerated.

By the end of the 1990s, the economy had begun to grow rapidly, making Mozambique a putative economic star of Africa; however, inequality also deepened dramatically (Fauvet 2000; Hanlon 1996; Ministry of Planning and Finance 1998; Pitcher 2002; World Bank 2001). The ten-year period after the end of the war was characterized by rapid and highly visible change in the social and economic environment, especially in the center and south of Mozambique where more foreign aid and private investment have concentrated. In spite of the difficulties experienced during the war, many Mozambicans openly lament declining communitarian values and increasing inequality, corruption, crime, and sex work as indicators of a degraded social world in the postwar period.

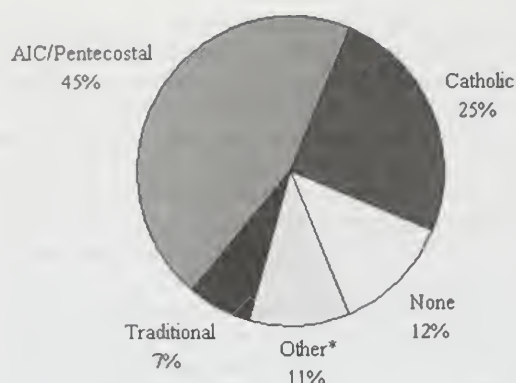
In Chimoio, new house construction, a new Coca-Cola bottling plant, cell phone proliferation, increased trucking, and tobacco farming expansion have created a social environment in which some in the local population became visibly wealthier over a very short period after the war. For many others, the period was marked by continuing impoverishment and, for some, deepening economic insecurity and displacement. During the preadjustment period, the government had rationed food and subsidized food prices, creating more equitable access and food security. The SAP, however, led to an erosion of these price protections, and by 1993 the rationing system was ended (Hermele 1994; O'Laughlin 1996; Sheldon 2002). As market forces set in, food prices skyrocketed, while salary increases lagged far behind. Women's cooperatives were disbanded, and the parastatal known as Agricom that acted as a guaranteed buyer of subsistence produce from poor households was dismantled to allow market forces to set prices. Much of the productive land once accessible to poor women, especially the fer-

tile riverine areas known as *matoros* in Chiteve, was offered to tobacco and other larger-scale farmers. The state-owned textile factory, TextAfrica, was sold to a private investor and then closed in 2000, leaving thousands without jobs.

Chimoio is now a multilingual city of 170,000 where the majority speaks the local language, Chiteve, a variant in the Shona-based family of languages, as well as Portuguese. Most of the population lives in the shantytown bairros that ring the colonial "cement city," and most households combine wage earning or other income generation in the city with maize or sorghum subsistence production on small fields called *machambas* outside the city. A large provincial hospital lies at the center of town, and several smaller health centers are located in the surrounding bairros. Residents often turn to traditional healers, called *curandeiros* in Portuguese and *nyanga* in Shona, or to church prophets to resolve spiritual crises believed to underlie health problems and misfortune.

"Occult" activities take many forms in this community. Curandeiros manage and communicate with a complex spirit world in Shona religious ideology and provide interpretation and remedy for illness and misfortune (Bourdillon 1991; Chapman 2003; Chavunduka 1978; Gelfand et al. 1985). Illness and misfortune can be attributed to witchcraft, sorcery, vengeful spirits of past murder victims, "immoral" behavior such as infidelity, and angry ancestral spirits (Bourdillon 1991; Chavunduka 1978). Several key spirit categories can be distinguished. Ancestral guardian spirits, *wadzimu* in Chiteve, can provide protection from spiritual threats and should be honored regularly, usually through ritual beer brewing and festivities to maintain that protection. Withdrawal of protection for failure to follow ritual patterns of respect, "immoral" behavior such as infidelity, or intrafamily conflict can make one vulnerable to malignant spirit affliction. *Bruxas* in Portuguese, or *wakoro* in Chiteve, however, are closest to the English-language word *witches*; those in this category are believed to be women possessed by inherited malevolent spirits who use their malicious powers capriciously and secretly (Bourdillon 1991). The English term *sorcery* best corresponds to certain capacities, not inherited, that focus on spiritually infused medicines, substances, and poisons to harm one's enemies or promote good fortune. In Chiteve, the terms *kukamba* and *kuromba* refer to the purchase from curandeiros of *drogas* (drugs) in Portuguese or *mutombo* in Chiteve. The *drogas* are ritually mobilized to manipulate the spirit world for protection against external spiritual threats, to send misfortune and illness to others, or to gain good financial success. The term *feitico* is also sometimes used in reference to this kind of sorcery, but a second Portuguese term, *drogar*, is frequently heard. One who pays a curandeiro to engage in these often dangerous practices is called a *drogado*.

Specific categories of spirits are especially dangerous and figure prominently in stories of illness and misfortune. *Mupfukwa* are widely referred to as spirits of people who have been unjustly killed and are seeking compensation or vengeance. These spirits can circulate within families



*Muslim, Seventh Day Adventist, Jehovah's Witness, Other Protestant

FIGURE 1. Religious affiliations in the sample.

or be sent to harm others by skillful curandeiros to cause misfortune, illness, or intrahousehold discord. Stephen Lubkemann (2002, 2005) has provided detailed accounts of perceived mupfukwa spirit proliferation resulting from violence during the war in districts south of Chimoio. Displacement from the war and the related rupturing of family relationships may have contributed to failures of traditional rituals for ancestral spirits (*wadzimu*) to provide spiritual protection from vengeful mupfukwa (see also Igreja 2006 and Marlin 2001 for similar narratives from rural areas concerning *gamba* spirits in central Mozambique). Whether derived from war or other conflict, these spirit dynamics offer an interpretation of personal misfortune for many in Chimoio and frame the encounter with Pentecostal healers.

SURVEY RESULTS

Socioeconomic and Demographic Characteristics of the Sample

In the survey sample, about 45 percent of respondents reported belonging to churches described as AIC or Pentecostal. Over 18 percent identified as AIC members, and nearly 27 percent were members of a range of Pentecostal churches (see Figure 1).⁶ Catholics account for about 25 percent of the total sample. About seven percent identified themselves as "traditional," 12 percent chose "none," and nearly 11 percent were placed in the "other" category, distributed in small numbers among Protestant, Seventh Day

Adventist, Jehovah's Witness, or Muslim groupings. Over 60 percent of respondents had joined the churches since the end of the war, suggesting that the last decade was the period of greatest growth.

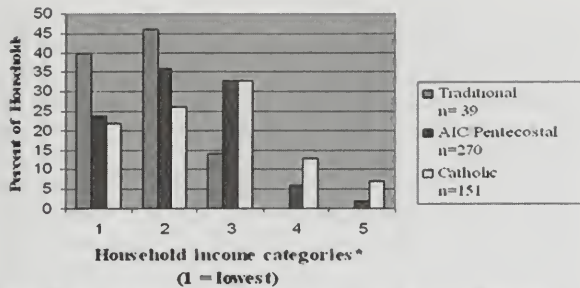
Forty-five distinct churches were identified by respondents and then categorized as AIC, Pentecostal, mainline Protestant, Seventh Day Adventist, or Jehovah's Witness. According to informants, many of those who identify as Catholic in the city openly engage in some traditional practices, in sharp contrast to members of AICs and Pentecostals, whose churches prohibit participation of any kind in tradition. Rejection of traditional practices is an essential signifier of conversion. Some church members do seek help from curandeiros; however, by all accounts, this must be done secretly. Within this context, those who identified themselves as "traditional" were very unlikely to also be members of other faiths. The "no religion" identification showed no discernable trends along basic demographic variables. However, significantly more men than women chose this category.

As Table 1 indicates, there were no significant differences among major religious affiliations in terms of age, household size, or number of children.⁷ Language and ethnicity also did not vary significantly among the religious affiliations. Although displacement from war was hypothesized to be a potentially important factor in church growth, over 70 percent of all respondents either were born in Chimoio or spent most of their adult lives in the city, and there were no significant differences among religious affiliations in terms of migration history or area of origin.

However, significant differences were revealed among affiliations for income, education, and social status of occupation. To examine these data, AICs and Pentecostals were grouped together and compared with Catholics and those who identified themselves as "traditional." Five household income categories, four education categories, and three employment social status categories were constructed from the survey response formats to rank and compare distributions of religious affiliations across these measures, as demonstrated in Figures 2–4.⁸ The distributions are overlapping but reveal a distinct gradient that is consistent across all three variables, with AICs and Pentecostals occupying a middle position. Although those who identified as "traditional" tended to be the poorest and least educated, they constituted a very small proportion of the sample (seven percent) and were 60 percent male (see below).

TABLE 1. Characteristics of the sample by religious affiliation.

	AIC	Pentecostal	Catholic	Traditional	Other	None	Total
n (% of total)	110 (18.4)	162 (27.2)	147 (24.7)	39 (6.6)	64 (10.8)	73 (12.3)	596 (100)
Percent women (% group)	65 (59.6)	85 (52.5)	68 (45.9)	17 (42.5)	30 (46.2)	32 (43.8)	297 (49.7)
Consensual union (% group)	90 (82.0)	133 (82.2)	114 (75.5)	31 (80.0)	53 (83.1)	57 (78.9)	476 (79.9)
Age (mean)	33.4	33.8	37.1	36.7	35.2	36.1	35.2
Education in years (mean)	4.8	5.7	5.9	3.4	6.9	4.9	5.5
Household size (mean)	7.4	7	7.2	7.5	6.9	7.1	7.1
Number of children (mean)	3.7	3.2	4	3.7	3.1	4	3.7



*AIC/Pentecostal in categories 1-2 vs. 3-5 compared to traditional and Catholic is significant ($P < .05$)

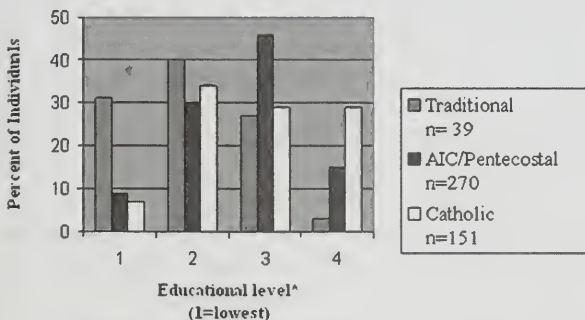
FIGURE 2. Household income by religious affiliation.

AICs and Pentecostals therefore included the great majority of the poor and working class in these bairros.

When asked to rate their own households on a four-point scale from very poor to somewhat wealthy, participant responses again produced the same gradient (see Figure 5). Perhaps most importantly, when respondents were asked to assess whether their households had gotten poorer or wealthier during the previous ten years of economic reform, the gradient is more pronounced (see Figure 6). A majority of Catholics reported that their households had stayed the same or gotten wealthier, whereas a majority of both Pentecostals-AICs and traditional respondents reported that their households had become somewhat or much poorer in the last decade. It is notable that an overall majority of the total sample felt that their households had gotten poorer or stayed the same over this period of national economic growth.

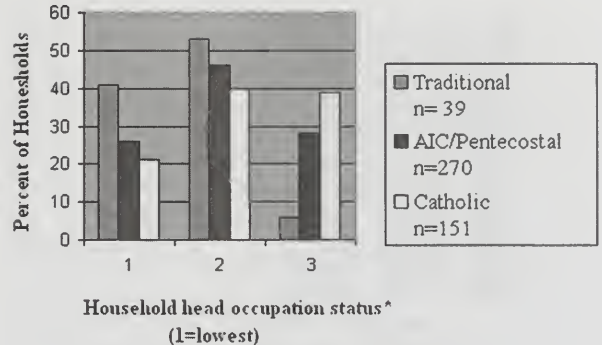
Attitudes about the Social and Economic Environment

Three items were developed to measure perceptions of change in local economic inequality (see Table 2). The questions were designed to establish whether there was a widely held perception in the local community that the gap between the rich and poor was growing and to measure differences among individuals and religious affiliations concerning these perceptions using a Likert scale constructed from



*Mean years of education differ significantly ($P < .05$)

FIGURE 3. Education level by religion.



*Significant difference between religious groups ($P < .05$)

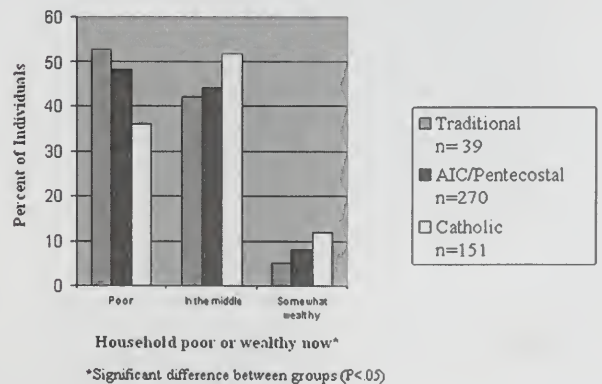
FIGURE 4. Social status of household head by religion.

the three items. A key single item asked whether respondents agreed or disagreed that a few had gotten richer while many more had gotten poorer since the war's end in 1992. Over 84 percent responded that they agreed, and 51 percent agreed strongly. These perceptions were widely held and cut across major religious affiliations and demographic groups.

Likert-format items were also used to measure attitudes toward changes in crime and violence in the bairros over the previous ten years of reform. Eighty-one percent responded that they felt that danger from crime had increased, and nearly 85 percent reported an increase in sex work in the bairros over the last ten years. Finally, the data also reveal a widely held perception that gender relations in homes in the broader community in general had deteriorated. Over 58 percent believed that trust within marriages in the community generally had declined over this period, and nearly 61 percent felt that the number of divorces had increased. Nearly 82 percent responded that conflict within households over money had increased.

Spiritual and Occult Practices

Single items were used to assess perceptions of change in levels of engagement in occult activities and spirit beliefs in the city (see Table 2). Based on the typology presented above,



*Significant difference between groups ($P < .05$)

FIGURE 5. Household economic status self-assessment.

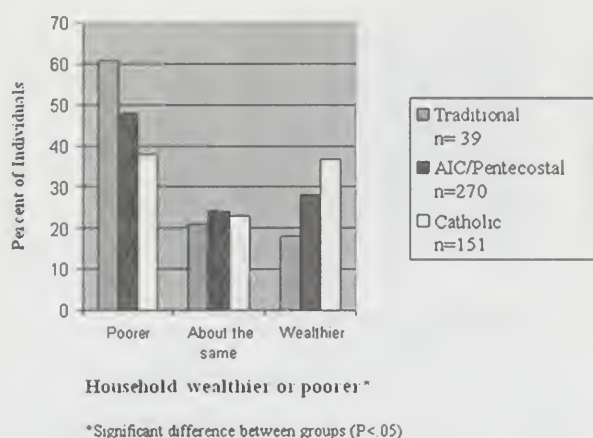


FIGURE 6. Change in household economic status over previous ten years.

three general distinct but interconnected categories of spiritual practices were distinguished using separate items in the survey instrument. These included ancestor spirit veneration, witchcraft (*uroya* in Chiteve), and the use of drogás. Nearly 70 percent responded that the number of people engaging in ancestor veneration practices had actually declined in the last ten years. The activity of witches was also believed by more, about 40 percent, to have decreased. However, in striking contrast, over 66 percent believed that use of drogás by ordinary people, usually men, to reduce misfortune or boost their success in life had increased in the postwar period.

Gender and Intrahousehold Dynamics

As predicted, gender differences in participation in religion were evident as well within each religious affiliation (see Figure 7). About 60 percent of those identified as AIC members and 52 percent of Pentecostals were women, in contrast to 47 percent of Catholics and 42 percent of traditionals. In

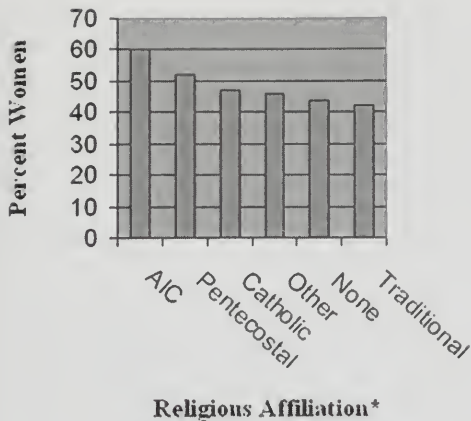
the total sample, about 50 percent of women versus 40 percent of men identified themselves as members of AICs or Pentecostal churches. The greatest contrast appears in AIC membership, where 22 percent of all women respondents in the sample were identified as members in contrast to about 14 percent of all men. Twenty-eight percent of all women surveyed versus 25 percent of men belonged to Pentecostals. When the data are disaggregated by both age and income categories, the Pentecostals and AICs attracted nearly 60 percent of poor women under 40 in the sample. Sunday services in many churches revealed even more striking gender differences where 75–80 percent of adult participants were women.

Nearly 80 percent of respondents belonged to a nuclear household, defined as an adult male and adult female with children. Over 82 percent of Pentecostal and AIC women described themselves as either married or in a partnership compared with about 76 percent of Catholic women who had a spouse. Among women with partners, about 52 percent in AICs and 45 percent in Pentecostals reported that they did not share their religious affiliation with their spouses. This contrasts with only 35 percent of married Catholic women who reported having a husband who was not Catholic. For men, the data provide a contrast. About 76 percent of both AIC and Pentecostal men reported having spouses with the same affiliation, equivalent to 77 percent of Catholic men who had Catholic wives. Among Pentecostal and AIC women whose spouses were not in their churches, the great majority had spouses identified as having “no religion.” These data suggest that many women (with partners) who join Pentecostals and AICs do so without their spouses.

Women reported first connecting with their churches through friends or neighbors (about 43 percent) more than via parents or family (27 percent). Strikingly few women reported that their spouses were their main initial link to their churches. Men, however, reported far fewer contacts through neighbors than women and more initial links

TABLE 2. Perceived change over ten-year reform period ($N = 610$).

Variable (%)	Decreased	Remained Same	Increased
<i>Social environment</i>			
Gap between rich and poor	12	4	84
Danger from crime	15	4	81
Sex work	12	4	85
Social envy/competition	31	17	52
Social Conflict	40	11	49
Trust in others in bairros	25	21	54
Mutual support from others	29	12	59
<i>Intrahousehold relationships</i>			
Trust within marriages	58	16	26
Divorces in the community	25	14	61
Intra-HH conflict over money	13	5	82
<i>Spirit and occult practices</i>			
Protection of ancestor spirits	70	10	20
Use of sorcery (<i>drogas</i>)	21	12	66
Witches (<i>feiticeria</i> , <i>bruxas</i>)	40	22	38



*Significant difference in proportions of women between AIC/Pentecostals and others grouped together ($P < .05$)

FIGURE 7. Proportion of women in each religious affiliation.

to churches through direct contact with local pastors and through their wives. Age also emerged as an important variable in contrasting religious affiliations and gender. Over 75 percent of women in AICs and Pentecostals were under 35 years old, in contrast to about 60 percent of the Catholic, traditional, and “no religion” categories of women. Among men, religious affiliation was spread more evenly across age groupings.

The data show stark gender inequality in cash income among survey respondents and sharp differences among religious groupings in reported patterns of intrahousehold decision making around money. Sixty percent of all women earned no cash income at all in the month before the interview, in contrast to only ten percent of men who reported earning none. These proportions remained consistent across religious groups. Fifty-two percent of men earned over 500,000 meticaís (approximately USD20), whereas only 13 percent of women reported earnings in that range. Nearly 80 percent of traditional men and 60 percent of Catholic men reported that they alone made the decisions on household cash use, in contrast to 49 percent of Pentecostal and 52 percent of AIC men who reported such control. Almost 37 percent of AIC and Pentecostal men stated that they shared decisions on the use of money with their spouses, in contrast to only 17 percent of traditional men and 21 percent of Catholic men who reported sharing decisions. Importantly, only 16 percent of women said that they paid when going to the curandeiro, whereas 54 percent said their spouses paid.

INTERVIEW FINDINGS: THE POLITICAL ECONOMY OF AZAR AND GENDERED MISFORTUNE

The in-depth qualitative interviews conducted with 80 recent converts provide conversion and illness narratives that are deeply individual but reveal several broadly shared themes that contextualize the survey findings. Although

most cited health problems, these illness episodes were woven into broader stories of misfortune that for men derived from difficulties at work, finding work, and alcohol abuse and for women generally involved challenges to reproductive and child health. In the Mozambique environment, both employment and reproduction are fraught with risk, uncertainty, and peril for the poor, and in local Shona religious ideology this misfortune is often believed to have spiritual causes that require treatment. The extreme social and biological dangers derived from women's reproductive roles, worsened by growing inequality in the impoverished bairros, have produced a population receptive to Pentecostalism's offer of comprehensive social and spiritual protection. This perhaps best explains why the churches are so popular among younger women. The Portuguese term *azar*, meaning bad luck or misfortune, is frequently used, especially by men, in their stories to identify misfortune that they seek to treat. Intrahousehold conflict is prominent in the conversion stories of both men and women. In traditional ideologies, *azar* was often attributed to the intervention of an *espírito mau* (a Portuguese term meaning bad spirit), which in Chiteve is called a mupfukwa spirit. Although it was anticipated that spiritual affliction deriving from the war would figure prominently, ten years after the conflict few directly attributed their spiritual difficulties to the war specifically and referred instead to long-standing spiritual afflictions within their families.

Reproductive Health and Intrahousehold Conflict

Most women interviewees described child and reproductive health problems as primary motivations for seeking help from a church. Embedded within these narratives were tales of intrahousehold strife, spousal conflict, and clashes with neighbors. The following excerpt from an interview with a woman in the Church Nyasha dzaMwari (in Chiteve), which is also known as Graça de Deus (Church of God's Grace or Church of Thanks to God in Portuguese), is typical:

Before my mother died my children didn't get sick—but they started to get sick after she died. And I went to the curandeiros who said, “You have a bad spirit that's chasing you,” and at times I couldn't get along with my husband, there was always confusion—without understanding they said it's that spirit . . . this spirit was chasing me, taking revenge on me, so I couldn't get along with my husband, and with neighbors, at times I had conflict with my neighbors. So I heard there was this church called Graça de Deus. It helps you but without having to pay, one doesn't pay, so I came here. My daughter also gave birth to two children that died, but now it's okay. [Interview with woman, Graça de Deus, June 3, 2002]

The reason women cited most frequently for deciding to seek help with health problems from a church prophet or pastor rather than a curandeiro was the high cost of traditional healer treatment (see also Pfeiffer 2005). Two examples are given below:

When I married my husband I had problems giving birth. When I gave birth to my first child it died, I gave birth to another it died. . . . When I got into the Zion church and went to fast when I was pregnant with my other son that I have now, yes I went to fast, then came down, then fasted, came back. . . . [Curandeiros] said to me leave the church for us [to treat the bad spirit], but I refused because I'm not a person of means [*não tenho condições*], when one goes to the curandeiro you need to go with money, without money you are not treated. [interview with woman, Zion Christian Church, June 2, 2003]

[The price for curandeiros] has gone up a lot—some are asking for 500,000 meticals, one million, its not good, and people continue to die. It is because of this that we are running to the church . . . this church, Graça de Deus, doesn't make you pay. [interview with woman, Graça de Deus, June 2, 2002]

As the survey data suggest, when women do consult curandeiros, it is often with their husbands, who usually pay the steep fees. Men's control of household money, while always a consideration, looms even larger as a factor women must consider in seeking help for spiritual afflictions given an environment of inflating curandeiro fees. Women's access to curandeiros is increasingly mediated by men. In contrast, churches offer a spiritual remedy at no initial cost that responds to women's individual agency.

Many women's narratives reveal another important goal of this independent initiative: that is, to bring errant husbands into their churches. The telling of these stories often followed a common trajectory ending with the successful reconstitution of the household after both husband and wife had converted. Here is a typical example:

I first converted to the Zion church. The problem was this—my husband was drinking a lot to such a point that we couldn't get along at home, and when we got some money it soon went to the *dumbanengue* [black market]. But one day God came to me, my husband woke up early in the morning and said, "My woman, I'm going to stop drinking. I am looking for a remedy in this world and I'm not finding it, not in the hospital or the curandeiro. I'm not finding it. So I prefer to enter the church to find salvation." . . . My husband is now in the church and was saved. And it's already better. Money, we're now able to buy something to feed our home. I pressed my husband, and we converted together, and we received salvation, and up to now our life is better. [interview with woman, Zion Christian Church, June 2, 2003]

Women's narratives describe afflictions in which conflicts with a spouse, often over money, are entangled with child health problems or infertility provoked by fears of spiritual assaults. In some cases, women described their need to control their husbands as the initial motivation to seek help from a church. Others sought help more directly to remove an offending spirit, but in most cases the importance of stabilizing the household and redirecting the spouse's resources to the home were critical goals of conversion.

Men, Curandeiros, and Pentecostalism

Pressures on many men to succeed in the wage work world appear to lead them more often to traditional healers to pur-

chase solutions to their dilemmas. But clearly many men also tire of the financial drain and the isolation of the drug prescribed and eventually join churches as well, often pulled in by their wives. For men, the experience of *azar* nearly always focuses on economic difficulties such as failure to obtain employment, loss of a job, or loss of money through drinking or poor judgment (see also Engelke 2004 for similar narratives from Zimbabwe). Most interviewees recounted extended periods of seeking help through visits to curandeiros. One man stated:

At work, it was easy to have professional problems, my relations with coworkers were not close . . . with the woman I am with now, we we're living in a climate that was a little destabilized, we fought, there was misunderstanding in our home, . . . discord, disorder, and I drank and she also drank, we didn't have any discipline in our home. . . . All this was caused by a bad spirit, and we spent a lot of money with curandeiros, I spent and spent and spent, but then I started to calculate how much I had spent and realized I had spent so much in my search for a solution that I believe I could have had a life that made good sense, but when my monthly payment arrived I saw nothing. . . . I could buy almost nothing. . . . I continued without a solution, without a way out. When she [his spouse] found another solution [church] that is when I came to this church and accepted the attention that was given, and they didn't need payment. [interview with man, Graça de Deus, June 13, 2002]

The struggle against "*azar*" is experienced as a spiritual assault presumably arranged by a coworker or neighbor. However, the combined failure and high cost of traditional treatments leads to a search for other remedies. Many of the men's narratives described their preconversion despair with drinking problems and inability to financially support themselves or their families. One man offered this explanation:

When I get money I want to do whatever I want with it, at times I'll earn money and then get home I don't have any money anymore. It was this that made me a little late in joining the church. Because of this my wife went first and gained faith. It was on a Sunday itself that I saw that it was too much, it was after I had drunk too much on a Saturday and I stayed up all night, I could see that this wasn't okay, I felt weak, I had to go take a bath and went to church, and in truth I went to begin praying, and until today I'm not drinking or smoking, not anything. [interview with man, Zion Christian Church, June 20, 2002]

In addition to the broad protection against malignant spirits provided by the Holy Spirit, church life also demands a kind of discipline that many men cited as essential to reorienting their lives, stabilizing their homes, and earning a living.

Spiritual Protection and Social Support

Money, economic inequality, and intrahousehold conflict figure prominently in these conversion stories, but Pentecostal ideas and practices integrate easily into these local worlds in a way that also helps explain why the churches

has become so popular in contrast to other faiths that have dwindled (see also Maxwell 1999). In Chimoio, the movement has expanded primarily through local individuals who learn the fundamental tenets and practices and establish their own local congregations in poor neighborhoods to be more welcoming to those they recruit. Perhaps more importantly, the central Pentecostal idea that the "Holy Spirit" can possess the individual and provide protection against malevolent shades resonates quickly with local Shona spirit beliefs. While positioning themselves against tradition and casting it as demonic, AIC and Pentecostal pastors and prophet healers in Chimoio recognize the local names of traditional spirit afflictions in their healing rituals. In some cases observed during this research, prophet healers divined the nature of the spiritual affliction with the help of the Holy Spirit in a manner reminiscent of curandeiro spirit possession during first consultations. However, church pastors and prophets insist that help seekers convert and conform to Christian life to drive the offending spirit out and maintain the protection of the "Holy Spirit." Conversion normally involved fasting for up to seven days on the local mountain known as Cabeça de Velho at the edge of the city, the laying on of hands, and a variety of idiosyncratic ceremonies including steam baths, enemas, and collective baptism in nearby rivers.

The emphasis on mutual aid and social support also attracts many women; a number of informants referred to their churches as new families. One woman explained that she joined the church "to have family in the church or brotherhood in the church. For example when you get sick you have someone who can help you, when you need something you have family to help" (interview with woman, June 2, 2003). Speaking of her church's women's group, another member stated, "When someone is suffering, they come to help with whatever, it could be money—the women in the church take out some amount and give to the woman, it might only be 10 or 20 *contos* [about \$1], but it's a lot. We really have support" (interview with woman, June 1, 2003). Collections are regularly taken to support women with new babies or ill children. Importantly, this social support represents the generosity of the Holy Spirit. According to respondents, the churches also provide "refuge" from a perilous social world for poor women who are vulnerable to accusations of infidelity and prostitution and the spousal abuse that can follow. These specific characteristics of the Pentecostal idea appear to be almost perfectly tailored to the spiritual and material vulnerability experienced within poor households and communities in Chimoio.

DISCUSSION

Participation in both Pentecostal faiths and certain forms of occult practice is perceived to be increasing in Chimoio, but gender appears to map onto contrasting patterns of resort to these different spiritual strategies. Pentecostal fervor and occult practices often run through the same households. AICs

and Pentecostals are attracting a majority of poor women of reproductive age in this community and draw a significantly larger number of women than men compared with all other affiliations. The results establish that within the same community there is a widely shared perception that inequality has deepened, and key social conditions have worsened for many during the structural adjustment period. This is best indicated by perceived increases in intra-household conflict, crime, social competition, and women resorting to sex work for survival. Although these findings are consistent with the notion that neoliberalism has influenced the growth of both Pentecostalism and occult practices, analytic caution is necessary. The survey is cross-sectional, and the findings presented are primarily descriptive and do not demonstrate causality among the variables. The measurement of social attitudes is fraught with difficulty in any setting, and the social issues addressed in this survey are especially complex. Within these constraints, however, these key findings are noteworthy.

A majority of respondents reported that their households were as poor as or poorer than they had been ten years earlier at the end of the war. Whether or not households have actually become materially poorer, the findings underscore that many Mozambicans feel that they have not benefited from recent growth while they watch others in their local settings grow wealthier. It is the perception of increased relative deprivation (that is, the steepening social gradient), the associated insecurity caused by the withdrawal of social safety nets, and the social consequences of these changes that are so essential to understanding the attraction to Pentecostalism.

Deepening inequality and insecurity are experienced very differently by men and women in ways that often lead them to seek help and resolve their dilemmas through contrasting processes. Gender and class inequality intersect to place greater stresses on women in an economy in which survival depends increasingly on support from men within households. The data show that AIC and Pentecostal men are more likely to at least claim that they share household decisions around money with their spouses than other men. However, the data also reveal paradoxes. Although the promise of resurrecting the conflicted home may attract some women, most apparently enter churches without their spouses and through their own social networks. Women's agency is also revealed in the success of some in coaxing their spouses to join, but many homes remain divided: the data show that more AIC–Pentecostal women have spouses who do not share their religious affiliation than women in any other faiths.

Although women do often seek help from curandeiros, it is usually at the behest of their husbands and with their husbands' financial support. The perceived increase in occult practices in Chimoio appears to be driven mostly by men seeking to manage their misfortunes by purchasing potentially lucrative engagements with a dangerous spirit world from curandeiros. The "occult activity" most responsive to new economic conditions and useful to average

people in managing social status and fortune—that is, the commodified form of mutombo or drogas—was most widely perceived to be increasing, and to be becoming increasingly expensive, whereas other aspects of traditional spirit engagement were widely viewed as declining.

The emphasis here on the importance of money, health-seeking decision making, and economic insecurity does not preclude the importance of many other influences noted by scholars on what is undeniably an overdetermined social movement. However, we argue that the social circulation of money within communities and households amid deepening economic disparity, the commoditization of social relations, and declining social security has been underappreciated in much of the recent literature that associates Pentecostal popularity with an attraction to modernity and prosperity provoked by globalization processes (see discussion in Maxwell 2006:390). At the same time, other well-documented aspects of Pentecostalism that have made it so popular across the developing world are also at work in Chimoio (see Cox 1995). As urban historian Mike Davis writes,

[Pentecostalism is] arguably the largest, self-organized movement of urban poor people on the planet. . . . Although, like Islam in the slums, [Pentecostalism] efficiently correlates itself to the survival needs of the informal working class (organizing self-help networks for poor women, offering faith healing as para-medicine . . .), its ultimate premise is that the urban world is corrupt, unjust, and unreformable. With the left still largely missing from the slums, the eschatology of Pentecostalism admirably refuses the inhuman destiny of the Third World city. [2004:34]

There is, of course, an additional urgency to understanding and engaging Pentecostalism in all its variations in southern Africa. The church movements have surged in precisely the same communities that have the highest HIV prevalence rates: those septic periurban slums that ring major cities and towns. The spread of both Pentecostalism and HIV has been hastened by the same trends in economic disparity and gender inequality exacerbated by SAPs, which dismantled the few social protections the poor majority ever had. As the most dynamic actors in civil society now in the bairros and shantytowns of southern Africa, the churches may provide the partners so desperately needed to mobilize communities around HIV testing, treatment, and prevention efforts as underfunded health systems struggle to reach the poor.

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NOTES

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1. There are important differences between AICs and "mainstream" Pentecostal churches, but they share key Pentecostal tenets including, primarily, the belief in the healing power of the "Holy Spirit," the authority of New Testament scripture, ritualized speaking in tongues (among some AICs), and ceremonies of baptism (Cox 1995). Most AICs in Mozambique can trace their roots to the same early Pentecostals who arrived in South Africa a century ago (see discussion in Meyer 2004 and Pfeiffer 2002).

2. Because the survey sampling frame was restricted to three bairros, the results are not representative of the entire city. However, the bairros were selected for their demographic similarity to the city as a whole (based on analysis of 1997 census data [Instituto Nacional de Estatística 1999]). The survey data also generally match the census data for the city in terms of key demographic variables. The findings do not formally represent Chimoio; however, it is likely that they are very similar to what would be found in the rest of the city.

3. Based on available information for each individual and household (roof type, floor type, and location), research teams believed that nonresponders did not differ dramatically from responders in terms of socioeconomic status.

4. Perceptions of inequality and social cohesion are aggregated to the community level to provide a measure of the community environment. Researchers using these methods have also attempted to measure various dimensions of community cohesion such as trust, mutual aid, sense of community, social capital, crime, and a range of other constructs believed to be influenced by levels of inequality (Kawachi et al. 1997).

5. Factor analysis was conducted and Cronbach's alpha was used to examine the reliability and coherence of the scales. Items were dropped and the data were retested to achieve α measures that exceeded 0.80.

6. These figures differ slightly from estimates reported in previous publications on these data (Pfeiffer 2004, 2005) because of the reclassification of some AICs as Pentecostals and reweighting. The differences are slight and do not affect the findings or interpretation.

7. Data analysis revealed a significant difference in ages between men (mean of 38.9) and women (mean of 31). In some instances younger husbands may have not been present because of work or migration, and some nonrandom selection favoring available women by interview teams may have occurred. The age difference in the survey may reflect actual local age differences because of male migration. Older men may have been occasionally nonrandomly selected in households to speak with interviewers given their leadership role in their families.

8. Ranking categories for each figure were calculated as follows:

Income: HH income ranges per month were constructed so that 1 = 0–500 meticaís (in thousands); 2 = 600–1,900; 3 = 2,000–4,400; 4 = 4,500–8,900; and 5 = 9,000+.

Occupation status: The survey used a list of possible occupations. Through focus group discussions and systematic sorting, these were placed into three status groups, in which 1 = domestics, unemployed, and manual laborers; 2 = street vendors, artisans, and skilled laborers; and 3 = office workers, small business people, professionals, and larger-scale business owners.

Education: The education variable measures the number of years the respondent attended school in the Mozambique public education system: 1 = no formal school; 2 = between one and four years of school; 3 = between five

and eight years of school; and 4 = between nine and 12 years of school.

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A "Consumer's Right" to Choose a Midwife: Shifting Meanings for Reproductive Rights under Neoliberalism

ABSTRACT The "right to choose" has long served as the ideological rallying cry for reproductive rights activists. Yet critical attention to the social, political, and economic conditions under which individuals make such choices has been central to anthropological research on reproduction. In the context of neoliberal public policy shifts that favor trust in the market to remedy all social and economic inequality, I explore how women's reproductive rights are becoming characterized by one's ability to consume uneven reproductive "choices." Based on my ethnographic fieldwork with midwifery supporters in Virginia, I examine how organizers have begun to utilize "consumer rights" rhetoric in their struggle for legal access to midwives. One often-unintended result has been intensified divisions within this movement, particularly as low-income "homebirthers" feel unable to claim the identity of "consumer." I use Virginia as a case study to raise broader questions about women's shifting strategies toward securing reproductive rights under neoliberalism. [Keywords: reproductive rights, neoliberalism, midwifery, consumption, women's activism]

AT THE FIRST MIDWIFERY advocacy meeting I attended in Virginia in 1999, participants made a clear distinction between their identities as consumers and those of "all citizens." A facilitator at a Virginia Midwifery Coalition (VMC) meeting, a group that brought together leaders from midwifery and homebirth support groups from throughout the state, asked participants to brainstorm regarding the composition of the "midwifery community" in Virginia. Responses were categorized into three levels: (1) those who were actively participating in VMC, (2) those who would be likely to participate in VMC and the broader movement for midwifery, and (3) those who would be affected by the actions of VMC. "Consumers" were identified in both the first and second tiers, as members or potential members of the midwifery movement, but ironically not in the third tier: those affected by VMC's efforts to increase legal access to midwives. "All citizens," however, were identified only in the third category as those who would be affected by, but not involved in, advocacy for midwifery. Thus, midwifery supporters characterized themselves by their interest in (and ability to) hire midwives, rather than as individuals who deserve reproductive rights as citizens.

This example of midwifery supporters' adoption of a consumer identity is particularly significant to my study because the primary participants in this meeting were home-

birth mothers, not midwives, who were frequently unable to attend organizational meetings because of their 24-hour "on-call" commitment to the pregnant women in their care elsewhere in the state. By placing themselves, as consumers of midwifery services, outside the cadre of "all" U.S. citizens, this event highlighted the pervasiveness of recent neoliberal political shifts that have heralded a change in state priorities from serving the needs of citizens to creating self-sufficient consumers who will attend to their own needs (Hyatt 2001; Maskovsky 2000). Under the model of neoliberalism, possessive individualism is valorized, and personhood becomes conceptualized through one's ability to be engaged in the exchange of goods and services as a rational, independent individual (Kingfisher and Goldsmith 2001:716). Thus, with the increasing influence of neoliberal ideology on public policy decisions in recent years, activists must lay claim to rights not as citizens but, rather, as consumers of goods and services, and the market becomes the final arbiter of such claims.

During the 1960s and 1970s, feminists in the women's health movement initiated the familiar slogan "a woman's right to choose" to demand reproductive rights in the United States and throughout the world. These reproductive rights activists also found the use of the term *consumer* liberatory as a calculated alternative to paternalistic characterizations of the (female) patient and (male) doctor. As Barbara

Katz Rothman explains, "A 'consumer,' believe it or not, was a role with more dignity, more power, than that of 'patient.' ... In a capitalist system, in a fully consumerist world, consumption and the language of consumers is what comes to hand" (2004:283). In this article, I follow Rothman's (2004) retrospective critique of the increased commodification of maternity and childbirth in recent years by further questioning the long-term efficacy of market-based activist strategies under neoliberalism, particularly toward feminist goals to secure access to reproductive rights for all women. This inquiry becomes additionally complex in the context of recent legislative successes for midwifery advocates in Virginia, where lawmakers recently passed legislation to license certain non-nurse or direct-entry midwives (DEMs), the primary attendants of homebirth.¹ Through political victories like this, it becomes clear that "consumer rights" rhetoric is convincing to the state officials who are considering whether to open up the market of reproductive services to midwives. For those pursuing licensure for midwives, arguing for the "consumer's right" to choose a birth care practitioner remains an essential and strategic use of market-based terminology.²

What I question in this article, however, is how historically uneven access to reproductive health care services will ultimately play out for the socioeconomically diverse mothers who currently seek access to midwifery care. My interviews with low-income homebirthers revealed concerns about identifying access to midwives as a "consumer's right" and the differential effects such strategies might have on their ability to make reproductive choices. Thus, I question: How have market-based advocacy strategies contributed to women's diverse experiences of reproductive "choice"? How have recent strategies to secure access to midwives as a "consumer's right" complicated cross-class organizing efforts? Finally, what avenues exist for alternative strategies to reinvigorate women in the struggle for broad and equitable access to reproductive services?

Feminist anthropologists have a particularly important role to play in beginning to answer these questions. Early feminist anthropological texts were among the first to offer important critiques of medicalized childbirth that encouraged "women to challenge the system through exercising their consumer power ... to turn from obstetricians and hospital birth to midwives and homebirth" (Klassen 2004:251). While many feminist anthropologists—myself included—continue to support midwives and women's right to homebirth, we must also consider ways in which our own rhetoric, particularly in the context of recent neoliberal political shifts, may have uneven effects on the very women our strategic suggestions have sought to liberate.

As I show in this article, shifts toward consumer-based activism have significantly affected cross-class organizing efforts among midwifery supporters. On the one hand, as we have seen historically, many activists are finding market-based strategies, such as "consumer rights" rhetoric, useful as a means to draw together women from across the political spectrum and promote social and political change

(DeVries 1996; Rothman 1982; Ruzek 1999). On the other hand, the privatization of U.S. health care in recent years has increased the stratification of access to reproductive options, and many citizens do not benefit from the proliferation of "consumer choices" within the enhanced market of medical services (Hyatt 1999; Maskovsky 2000).

HEALTH CARE ACCESS AND CONSUMPTION IN THE ANTHROPOLOGY OF REPRODUCTION

Recent work in the anthropology of reproduction has shown how struggles over women's rights and reproductive health care choices have often highlighted unequal access to health care for different groups of women in the United States (Becker 2000; Clarke and Olesen 1999; Ginsburg and Rapp 1995; Lock and Kaufert 1998; Pollard and Hyatt 1999; Rapp 1999; Taylor et al. 2004). Feminist anthropologists have called our attention to the complexities of "stratified reproduction" (Colen 1986; Ginsburg and Rapp 1995), the power relations that give some groups access to reproductive choices while limiting the choices of others. This research has been central to the expansion of the anthropology of reproduction beyond studies of the physiological dimensions and diverse cultural practices surrounding reproduction toward more nuanced analyses of the social, political, and economic realities that permeate women's experiences of reproduction throughout the world.

Using this approach to address reproductive rights activism, it becomes evident that despite the best efforts of activists, reproductive health care reforms have not always succeeded in ameliorating uneven access to reproductive technologies and services among different constituencies of women. Historical policy shifts—such as the Sheppard-Towner Act in 1921, which led to the nation's first social welfare policy that directed public funds toward prenatal programs—have frequently enhanced reproductive options for white middle-class and affluent women but have been less successful for women of color and poor women, many of whom still lack access to basic prenatal care and other health care resources. Once again instead of equalizing the already stratified levels of access to health care in the United States, recent neoliberal efforts to "reform" the health care system by privatizing formerly state-sponsored services are further restricting access to it for low-income U.S. citizens. These "reforms" also ultimately regulate degrees of access to social, economic, and political rights as citizens based on productivity and consumption practices (Cruikshank 1999; Evans 1993; Goode and Maskovsky 2001; Hyatt 2001; Kessler-Harris 2001; Maskovsky 2000, 2001).

In the recent collection *Consuming Motherhood* (Taylor et al. 2004), anthropologists have vividly demonstrated how motherhood and consumption have become imbricated in North American social life in myriad ways around the turn of the 21st century. From the decisions that parents must make to have or adopt children to the commodification of maternity and child-rearing practices to the commercial relationships between parents and childbirth practitioners, the "consequences of capitalism for motherhood" (Rothman 2004:279) are deeply ingrained

in women's experiences of childbirth and mothering. In the case of North American midwifery, for example, Robbie Davis-Floyd argues that midwives engage in a form of "qualified commodification," through which they position themselves as valuable health care commodities to "sell" midwifery to legislators, nursing and medical societies, and regulatory boards: "Appropriating the notion of women as agentic consumers of maternity care (an image they [women] helped create), midwives have added themselves to the list of birthcare options from which women can now choose" (2004:214).

As Davis-Floyd suggests, mothers have frequently relied on their identities as consumers of maternity care in their struggle to convince legislators and medical officials that they should have the right to choose midwifery care. Furthermore, in a discussion of how scholars should refer to women who seek midwifery care, Margaret MacDonald explains:

The term "midwifery consumer" is not to be discarded entirely. . . . It implies a certain agency and choice on the part of women having midwifery care that has always been important to midwifery. Indeed, the consumer-based campaign for choices in childbirth was a key factor that fueled midwifery as a social movement over the last several decades. The idea of the midwifery consumer, however, is not simply a result of the self-conscious feminist agenda of woman-centered care and the critique of biomedicine. It also speaks to the political economy of reproduction within the context of late capitalism and demographic transition, specifically, the trend towards having fewer children later in life and the trend towards treating pregnancy and childbirth as valuable experiences. [2001:261]

Yet, as Pamela Klassen has demonstrated, birthing women who live in the capitalist economy of North America accept the commodification of maternity and childbirth only with "considerable ambivalence" (2004:250). Feminist homebirthers in Klassen's (2004) study, for example, resisted metaphors of consumption through religious-based criticisms of the "business of birth."

Although most participants in my study rejected the label "feminist" to describe their support of midwives (in contrast to the many feminist scholars studying midwifery), many expressed similar critiques of the commodification of maternity care in the United States. In this article, I further explore the implications for consumer-based activism in a cross-class movement of midwifery supporters as well as the forms of resistance to market-based strategies developing within them. As demonstrated above, feminist social scientists have been strong proponents of women's adoption of consumer-based identities in struggles for reproductive rights since the 1960s and 1970s. It is now time for anthropologists to return with a critical gaze to consider the effects of promoting reproductive rights as "consumer rights" under neoliberalism.

METHODS AND FIELDWORK

This article is based on the ethnographic fieldwork I conducted on grassroots organizing efforts and the legislative

developments around midwifery in Virginia from 1999 until 2005, when these efforts culminated in the passage of a bill to license Certified Professional Midwives (CPMs), a national certification for DEMs. Because midwifery and homebirth in Virginia were highly politicized during most of my study, I sought to protect the identities of participants by performing multisite participant-observation instead of more traditional ethnographic research based in a single community. Between 1999 and 2002, I conducted participant-observation at a variety of public sites associated with contemporary organizing for midwives. I attended legislative hearings in Richmond on midwifery laws during each of those years and the judicial proceedings for the trial of a prominent local midwife in 2000. I also joined 18 grassroots organizing meetings of midwifery advocates.³ Many of these meetings occurred in different areas throughout the state with the intent of drawing in homebirthers who could not always travel to other meetings or hearings; other meetings were strategically scheduled before or after legislative hearings in Richmond when members from throughout the state came together to support legislation.

After identifying zip codes where the majority of homebirths had been reported in Virginia (Virginia Department of Health, Center for Health Statistics 2000), I also conducted semistructured interviews with 40 midwifery supporters during 2001 and 2002 in and around Charlottesville, Culpepper, Richmond, Roanoke, the Tidewater area, Winchester, and Northern Virginia near the District of Columbia. Sixteen of these participants were trained as midwives, although only six were currently practicing.⁴ Of the 34 participants who were not practicing as midwives at the time of my study, approximately three-quarters referred to themselves primarily as "stay-at-home moms," although many of these women also worked outside the home in occupations including work as childbirth-related specialists, alternative health care practitioners, teachers, students, farmers, migrant fruit harvesters, waitresses, and military personnel. Nineteen participants were also homeschooling their children. All but two participants had children who were born at home or had used a midwife in another setting.

Each interview lasted between 30 and 90 minutes, and interviews were conducted in a variety of settings, including participants' workplaces, local restaurants, and a public library, although three-quarters of the participants invited me to their homes. Although interviews frequently took the form of a conversation between the participants, myself, and frequently their children, I asked all participants to discuss (1) their reasons for supporting homebirth and midwifery, (2) the social, political, and economic barriers to that support, and (3) their expectations about political participation, grassroots organizing, and motherhood.⁵ All interviews were recorded, transcribed, and coded for themes, such as participants' assessment of their own political activity; their discussion of the relationship among homebirthers, medical practitioners, and state officials; and the use of the term *consumer* to describe participants'

relationship to their support of midwives.⁶ I also analyzed these interviews in the context of the public debates over midwifery and homebirth from my recordings and transcripts of the debates over midwifery legislation in the Virginia General Assembly (Craven 2005) and the several thousand e-mails I collected during my participation on local and statewide list servers dedicated to the support of midwifery from 1999 to 2005.

Although it was not the initial intent of my study to focus on socioeconomic class differences among midwifery supporters, it became clear through my participant-observation at grassroots organizing meetings and legislative hearings, as well as through my interviews, that a cross-class movement for midwifery was developing in Virginia. In each interview, among a list of 15 other demographically related questions about religious background, political affiliation, racial and ethnic background, age, household size, and the like, I asked the participant for an estimate of her or his household's annual income, education, and occupation. My analysis of the differences between the experiences of low-income homebirthers and those of middle-class and more affluent homebirthers in this article is based in part on these reports. For instance, although the increase in midwife-attended births on a national level has been characterized as a largely middle-class phenomenon (Declercq et al. 1995:480; Fraser 1998; Klassen 2001), the participants in my study reported a broad range of annual incomes, ranging from as low as \$6,000 to more than \$250,000. Two-thirds of the participants lived in households that fell below the median income levels for their county (based on U.S. Census Bureau 2000a), and nearly a quarter lived in households that fell below the federal poverty line (based on U.S. Census Bureau 2000b), although only two acknowledged receiving federal assistance.

My data on occupation and education complicated my analysis of reported income levels. Participants had frequently worked at a variety of different jobs over their lifetimes (sometimes moving between jobs that require an advanced degree and service-level professions), and the education level of participants in my study was generally quite high: all but five had taken at least one college course.⁷ Further, income level had frequently changed over the course of a participant's life, and although their discussions of experiences with reproductive health care and the midwifery movement hovered at times around issues related to income, participants' accounts were frequently punctuated by their broader experiences of poverty, power, and access to (and experiences with) medical care over the course of their lives. Thus, measures such as education level, income, and occupation at the time of my study are admittedly imperfect in terms of assessing socioeconomic divides. Moreover, federal poverty levels do not vary by county (which can be significant in states like Virginia, where median income levels vary by over \$50,000 between rural and urban areas of the state; U.S. Census Bureau 2000a), and median income levels by county do not take into account family

size. Anthropologists, sociologists, and economists have also shown how analyses of socioeconomic status cannot be separated from discussions of how race is also infused in experiences of medical access, political power, and poverty (Amott and Matthaei 1996; Davis 2006, 2007; Farmer 1999; Mullings 1995; Mwarira 2001; Naples 1998; Susser 2001). Following recent trends within the national midwifery movement (Fraser 1998; Klassen 2001) and contemporary political organizing for midwives in Virginia (Craven 2006), participants in my study were primarily white, although they reported a wide array of ethnic identities. Only four women of color agreed to be interviewed for my study, and they were especially concerned about being vulnerable to state intervention as a result of their choice to give birth at home. Thus, although I discuss the historical elimination of African American midwives in the next section, I choose not to identify the racial or ethnic backgrounds of participants, because they would be easily identifiable within contemporary midwifery organizing in Virginia. Instead, I address participants' diverse socioeconomic experiences by including their own narratives about the effects of medical access, political empowerment, and poverty. My use of terms such as *low-income* and *affluent* to describe midwifery supporters is intended to be descriptive of these broader experiences, in conjunction with data on participants' reported household income levels.

Despite the limitations discussed above, my study has shown significant differences in the ways that participants described their level of public participation in organizing efforts, as well as the terminology and activist strategies they chose to claim reproductive rights. For instance, all of the participants who questioned the usefulness of the term *consumer* to describe their demand for the right to homebirth with midwives—often in the context of explaining that the consumer “choices” available to them for birth care services were not the same as the options of the more affluent homebirthers—reported annual incomes below the federal poverty line at the time of our interviews. In contrast, most of those who used the term *consumer* to describe themselves or other midwifery supporters—one-third of all participants—reported annual income levels upward of \$50,000 a year. These participants frequently used the term *consumer* to correct my reference to them as “political advocates” and “activists.” Several also corrected my reference to the midwifery movement as a group of “people” or “individuals,” preferring to highlight their—and others’—political participation as consumers. Interestingly, most of these participants were also above childbearing age or not planning to have any more children: implying that putting themselves in the political category “consumer” was less a descriptive strategy than it was a strategic tactic to make use of the state’s terminology (and values) to attain their political objectives. As context for my discussion of the recent focus on consumer identity among more affluent midwifery advocates, the following section briefly explains the historical roots of women’s uneven experiences with both

reproduction and political involvement in Virginia over the past 100 years.

A BRIEF HISTORY OF MIDWIFERY IN VIRGINIA

Echoing trends throughout most of the United States during the early 1900s, Gertrude Fraser's historical ethnography *African American Midwifery in the South* (1998) has demonstrated how Virginia physicians and lawmakers colluded in legislative efforts to eliminate midwives—primarily African American and poor white women—throughout the state. Through her historical research and interviews about participants' memories of midwives in a contemporary African American community, Fraser demonstrates how the laws regulating and supervising midwifery during the early part of the 20th century "inevitably mixed arguments about the need to reduce maternal and infant mortality and to improve health care with those confirming the importance of maintaining the racial and social order" (1998:72). Although Virginia kept no official records of midwives at the turn of the 20th century, one physician estimated that as many as 9,000 midwives were practicing in Virginia during the early 1900s (Baughman 1928:749).

As a result of increasing state regulations, however, these midwives disappeared rapidly over the 20th century, and women began to deliver in hospitals. The last to make the shift to hospital birth were African American women, who were served by community midwives into the mid-1900s. Their move to the hospital underscored their hope of offering their children increased access to the medical care that had so long been denied to their race (Brown and Toussaint 1998:94; Fraser 1998; Mathews 1992:65). Fraser suggests that it was precisely this promise of a share in "medical progress" that "helped to subvert organized protest among disenfranchised and impoverished African Americans" (1998:129) against the medical and state efforts to eliminate midwives in the early 1900s.⁸ By the time Virginia passed a law in 1977 to make receiving compensation for practicing non-nurse midwifery illegal, only approximately 100 registered midwives remained (Virginia Department of Health, Center for Health Statistics, cited in Commonwealth of Virginia, Joint Commission on Health Care 2000:4). In 1977, legislators also passed a law to license Certified Nurse-Midwives (CNMs) in Virginia. This law required CNMs to practice under the supervision of a physician. Thus, the majority of Virginia's 180 CNMs currently practice in hospitals throughout the state (American College of Nurse-Midwives 2002).

Although a handful of DEMs continued to attend homebirths following laws that criminalized their practice, the state became increasingly vigilant in investigating underground practitioners during the 1990s. In combination with the national "homebirth renaissance" among a new constituency of educated, middle-class, white women in the 1980s (Davis-Floyd et al. 2001:106), these state investigations served as the catalyst for recent grassroots organizing to decriminalize direct-entry midwifery in Virginia.

At the time that Virginia homebirthers became active in these efforts, direct-entry midwifery was legal in approximately one-third of U.S. states, illegal in a third, and legally ambiguous or undefined in the remaining states. Although struggles to legalize midwives in others states were also occurring during the time that Virginia was introducing legislation, and New Hampshire, New Jersey, Tennessee, and Utah passed laws that changed the status of DEMs during those years, little contact between organizers in these states was evident in the early stages of my research. In the past few years, however, several active Internet-based resources and list servers have connected midwifery supporters throughout the United States and Canada, and national conferences offer workshops for midwives in states considering licensure (where representatives from Virginia have figured prominently in recent years). During my research, however, midwifery organizers' personal contacts with leaders in national organizations, such as the Midwives Alliance of North America and Citizens for Midwifery, were the primary nonlocal resources for midwifery supporters in Virginia.

Beginning with Virginia midwifery advocates' successful push for a study of direct-entry midwifery by the Joint Commission on Health Care in 1999, midwifery advocates lobbied for pro-midwifery legislation every year from 1999 to 2005. In 2003, legislators struck down the 1977 law that had criminalized non-nurse midwifery. The purpose of this bill was to pave the way for the Virginia Department of Health to recognize DEM as an emerging profession. The changes also meant that DEMs could no longer be charged with the misdemeanor of "practicing midwifery without a license"—although they remained vulnerable to felony charges for "practicing medicine without a license" or "practicing nurse-midwifery without a license." In 2005, however, lawmakers finally enacted legislation to license DEMs as Certified Professional Midwives. Midwifery advocates have been ecstatic about this new law, seeing it as a victory for both midwives and "consumers."

MOTHERS AS CONSUMERS

During my fieldwork, it became clear that midwifery advocates frequently drew attention to their legitimacy as consumers to make claims to the right to have a homebirth with the practitioner of one's choice. Several years ago, longtime midwifery advocate Thomas Danforth, whose children and grandchildren were born at home, was among the first to suggest that mothers, as consumers of childbirth services, deserve full rights within the Commonwealth of Virginia: "The state is depriving its citizens (consumers) of rightful access to safe and affordable maternity care by prohibiting [direct-entry] midwifery. As 'consumers,' you and your child are being exposed to damages (health and economic) due to the fact that [direct-entry] midwifery is prohibited" (list server message, February 17, 2000). Although Danforth delimited his use of *consumers* in parentheses and then in quotes, his acknowledgment of the state's understanding

of citizens as consumers is important in that the consumer status of homebirthers is characterized as a political status within the state. Thus, he suggests that it is as consumers, rather than as mothers or citizens, that both women and children are at risk because of the state's prohibition of direct-entry midwifery.

During lobbying efforts, homebirth mothers also identified themselves as consumers to lawmakers, frequently as a way to emphasize the precarious legal and economic situation of homebirth mothers in Virginia vis-à-vis reproductive health care providers. The president of Virginia Friends of Midwives, Ellen Hamblet, explained the following to legislators in a meeting of the Health, Welfare, and Institutions Subcommittee in 2000: "Consumers are caught in the middle of poor relations between doctors and midwives." Many organizers felt that the term *consumer* was an important means by which to differentiate themselves from birth care practitioners who had professional stakes in the legislation at hand:

One problem we've had in Richmond is it really doesn't make sense when you look at the way their [the legislative] system is created, it really does not make sense for a consumer group to be doing the kind of advocacy work that we're [doing]. . . . They assume that we're all midwives, because why would somebody who's not a midwife be talking about licensure for midwives? That's a professional thing to do, not a consumer thing to do. . . . At least half of them think we're lying, that we're really just midwives. [Fern Jackson, personal interview, September 13, 2002]

Ultimately, legislators consistently dismissed both midwives and "consumers" as they voted against legislation to legalize non-nurse midwives from 1999 to 2004 (for further discussion, see Craven 2005).

Understanding themselves as consumers has also made the issue of choice—and, more to the point, who has reproductive health care choices—more complicated. Although many contemporary U.S. citizens see choice "as the key right of American identity: we *want* the ability to choose" (Davis-Floyd and Dumit 1998:2), feminist scholars have also reminded us that "choice" and the ability to consume reproductive rights and services mean different things to different women as a result of their cultural and economic circumstances. Research on stratified reproduction demonstrates how choices are always made within the context of larger institutional structures, ideological messages, and fiscal limits (Ginsburg and Rapp 1995). As Rayna Rapp explains in her study of women's choices around amniocentesis, it was the "scientifically confident middle-class women who felt empowered to make a decision 'against the grain,' " to choose to forgo the procedure, whereas clinic patients were more likely to refuse the test indirectly, by being a "no show" for one or more of their scheduled appointments (1999:168–171). Thus, although the women in her study who chose to forgo amniocentesis ultimately made the same decision, they did so for different reasons and in different ways, and their "choices" were made in the con-

text of both their economic and social relationship to the medical institutions.

Similarly, although most homebirth mothers in my study identified individualized choice as an inalienable right for all childbearing women, their experiences of such "choices," and thus their strategies for enhancing reproductive choices, varied significantly. Prior to 2005 legislation that licensed CPMs in Virginia, several participants suggested that decriminalizing DEMs, in lieu of licensing particular practitioners, would offer them the ability to make such individualized choices. Although I do not wish to imply that support for particular pieces of legislation among midwifery supporters fell neatly along class lines, which it did not, many participants who expressed an ability to choose among reproductive health care services also believed that a "free" market would ensure that "consumers" would receive the best care available. One middle-class homebirth mother, Tara Mason, whose household income was well above the median for her county, explained:

I really have mixed feelings about it [licensure]. In Virginia, since we have a law banning DEMs, then getting them legalized again would definitely increase the access to them, but it will certainly include certain regulations that are probably going to be more restrictive than is necessary. One midwife I know, with more breech birth experience than most OBs [obstetricians], says up to 25 percent of her clients she would have to transfer out to an OB if she were to follow the restrictions most CNMs and CPMs have to abide by. Licensure is nice for governments to recognize those midwives that meet the level of training they want them to have, but shouldn't be necessary for all midwives. Consumers should be able to choose who they want at their births. . . . It would be best if the state would just register midwives, but let them practice within their own scope, and let them be regulated by other midwives and the consumers who would hire them. [personal interview, February 26, 2002]

Ultimately, Mason's concern was that state regulations would restrict the practices of her local midwives and, thus, consumer choices would be limited.

Similarly, Nelly Vicars, whose income level was just above the median for her county, explained how she saw the free market and consumer education as a solution to the quandary over midwifery legislation:

I don't think they should be licensed or regulated. . . . I'm really in favor of a free market. Say my neighbor across the street is a midwife and she's delivering babies, and I really haven't heard good things about her and if she's doing these cases that are just botched she's obviously going to go out of business because no one is going to go to her. I think it's the responsibility of the consumer to educate themselves and say: "What do I want to look for?" and "What kind of references does she have?" and those kinds of things. That would totally take care of regulating and licensure of them. They wouldn't need to be strictly regulated. So, I'd like to see the free market kind of take it over. [personal interview, March 11, 2002]

One of the primary arguments against homebirth and midwifery from both state and medical officials is that it

is the government's duty to "protect" mothers and babies from having to make such choices. Although these officials frequently debated whether homebirths, such as Vicars, would be qualified to make informed decisions about their health care, most homebirths believed that the research they had done—either by reading published material on safety in childbirth or through consultations with other homebirths—was sufficient. For Vicars, choice was understood as not only an opportunity for the consumer but also her responsibility.

Although the idea of a free market, under which individuals ultimately choose the best birth attendants for themselves, has been compelling for many midwifery supporters, it is important to consider that a consumer model often "appeals to people who are affluent because an unspoken assumption is that those who have more will get 'the best.' The assumption elevates choice to an ultimate value, an entitlement, something to be protected against erosion" (Ruzek 1999:314). Thus, while the consumer model offers some midwifery advocates a useful metaphor to describe themselves as citizens, it does not speak to the experiences of women who have restricted options around birth care.

Although many low-income women also supported decriminalization and eschewed the regulation and licensure of midwives, their reasons for doing so were significantly different. Many were concerned that the government would punish them for seeking local midwives who were not licensed by the state. Val Coleman, a single mother who described her income as "very little" and lived in a rural home with no running water or electricity, explained: "I just want to be completely anonymous and invisible, and do my thing, and live my truth, and not be bothered because I'm really a good person and I want to do things the way I think I want to do them, and that's not always politically correct or legal" (personal interview, August 7, 2001). Likewise, Nancy Davis, a single mother whose income was just under the federal poverty line, stressed that her individual lifestyle choices should not fall under government purview and made her childbirth choices accordingly:

I never questioned—, I didn't want to ask somebody if it was okay for me to have my baby the way I wanted. There was no question for me. It was kind of actually more of a setting apart of me and the government because it's like, okay, I know that we disagree on this, and am I going to give you all my power? No. I'm going to do it my way and know that it's right, and it is. That's what I did. [personal interview, August 8, 2001]

Whereas the more affluent participants in my study often felt it was their right to have choices and control in their childbirth experience (see also Lazarus 1997:133; Nelson 1983), many low-income participants indicated an interest in choices around their birth care but also a dependence on midwives as a low-cost childbirth option. In some cases, local low-cost midwifery services offered those who did not have the option of consuming mainstream childbirth services at the hospital the opportunity of consuming an alternative form of birth care (albeit in an underground

economy at the time of my interviews). As Kevin Rogers, a father whose three children were born at home with community midwives and who declined to offer an estimate of his household's annual income, explained, it was restricted economic resources that encouraged his family to make the "choice" to hire a local underground midwife: "We're not like the normal midwife consumers or clients. . . . It's also a financial issue with midwifery, in choosing midwifery too. We didn't have health insurance and didn't have income to be able to afford a hospital birth, couldn't figure out a way to do it. It was really dragging us down, and midwives were very reasonable" (personal interview, August 8, 2001).

Although many of the homebirths in my study who did not have insurance mentioned the option of going to public clinics for their birth care, they also cited their own or other community members' experiences of feeling disrespected in clinics to explain why they preferred to seek community-based midwives who frequently offered sliding scale or barter options for payment. Paula Queen, who reported a household income near the median for her county when we met, shared her remarkable story of finding a midwife earlier in her life because she could not afford to go to the hospital:

I didn't have a lot of money, I wouldn't say I was poor, but I was still paying off hospital bills for [my last baby], and when I was pregnant, I didn't have the money to go to the hospital—well I did, but I didn't feel it was God's will for me to be in debt like that. So. . . . I called around—I actually called the state—I called all the health departments looking for midwives. They were like, "We used to have one!" And then I called the state: "Well, we have a list. If you send us 35 dollars, we'll give you a list of certified midwives." I was like, "Okay," (. . .) [but] I didn't have 35 dollars, it wasn't like I could just cut a check for 35 dollars. So, it was so funny because I had worked at this place a year before, and they sent me a check for pretty much 35 dollars. And then I was homeschooling, and it was new to me—I was biting off more than I could chew with the homeschooling and doing all this. And I said, "I've had a really hard day, let's go out to eat." And I went out and spent the money. It was so irresponsible, and we went to [a local store] to pick up some things, and [my husband] looked behind him and told me to look at that car's license plate. It says "Midwives!" And I said, "Wow, let's just see what she looks like. We'll just see if I can handle this." We waited for her, and she never came out. We found an envelope, and I wrote on it "Hi, I'm looking for a midwife." [I figured,] we'll pray—if God doesn't like this, just tell him to send a wind or something and blow it off her windshield. And so she called me the next day (. . .) She said, "I got your note on my car," and so I said, "Well, I'm looking for a midwife." . . . I really felt that God sent me the best midwife in Virginia. [During my birth] I kept looking up at them [laughing], I don't even know these people! I met them in a parking lot. [personal interview, April 7, 2002]

It is significant that Queen attributed the agency around her decision to use a midwife for the first time to God—"God sent me the best midwife in Virginia"—rather than describing it as a personal choice, as many more affluent homebirths did. Other low-income homebirths in my

study also resisted attributing their decision to hire an underground midwife solely to personal choice for fear of being pathologized and potentially punished by the state.

BARRIERS TO POLITICAL ACTIVITY AND ALTERNATIVE ADVOCACY STRATEGIES AMONG LOW-INCOME HOMEBIRTHERS

In interviews, low-income participants in my study frequently expressed their fear of state repercussions for hiring midwives, as well as participating in—and including children in—political activism to support midwives. Several low-income women in my study went so far as to cite fears of incarceration for making—and advocating for—“consumer choices” that were not supported by the state.⁹ As a single mother of two whose income fell below the federal poverty line, Dera Haviland explained that she was not as politically active as she would have liked to be for midwifery as a result of her fear that she would be arrested if she participated in dissident political activity:

My heart is a lot, is very much with nonviolent protesting and forms of protest that can be pretty in the front of things, and I don't feel like I can do that given the fact that I'm raising two kids on my own and I don't have any extended network of family or friends that would, could raise them if something were to happen. . . . I don't know whether these are like latent beliefs from childhood, but I do get really concerned about if I was to identify myself with pretty extreme activity that it could end up compromising being able to do things legitimately. And I don't know what's right. [personal interview, March 14, 2002]

Haviland linked her lack of political participation for midwifery to preserving her right as a mother to care for her children. Other low-income women explained their fear that neighbors or extended family members would call Social Services if their political activity made them “inadequate” mothers. Thus, the “choice” to homebirth, as well as to become politically active, was limited by their relationship to the state. Rather than characterizing themselves by their ability to consume, low-income participants in my study highlighted their fears of persecution by the state, which could potentially take away their rights to live and mother as they desired.

Many of these same low-income homebirthers, however, discussed alternative advocacy strategies through which they were able to engage—often on a more individual or community-based level—in efforts to support midwives. For example, Gaia Riverton, who received prenatal care at a local hospital under their “indigent care” program prior to her homebirth, did not feel that she could be “politically active” in the legislature. Yet she recounted the importance of sharing her knowledge about midwives and the importance of breast-feeding with other women:

I think a lot of it is sharing with other women about my birth experience. Because, you know, even when you have a homebirth (...) [the midwife] asks you to go in to get preliminary tests done, so you're going into regular obstetricians' offices to get blood work or get a pelvic exam or whatever. And many, many times, I've been sit-

ting for an hour or more in the waiting room, and there are, you know, 20 other pregnant women there, and some of them have got other little babies, and you start to talk to them, and ... inevitably you are talking about breast-feeding, or bottle-feeding, or where you're going to give birth. And it's been so interesting to talk with these women about, you know, what are their plans? You know, questioning that a little bit. I remember meeting one woman that had just never even considered breast-feeding, I mean, it just had never crossed her mind. She said, “But doesn't it hurt? But isn't it a pain in the butt?” And I just remember sitting down and giving her the number for the La Leche League and talking to her about my experience, and it was just like, she had just never been exposed to that thinking before, and I think everything her doctor had been telling her and everything her friends had been telling her was that no one breast-feeds anymore. “They've got this stuff, you can just buy it at the store.” . . . So, often I think, maybe I'll just come in two or three hours early for my appointment (laughs) and just talk with people. I've even thought about just setting up a table and passing out information (laughs). [personal interview, March 13, 2002]

Riverton highlighted the importance of talking with other pregnant women, despite the fact that she reported feeling uncomfortable joining middle-class advocates in their efforts to persuade legislators or medical officials to support midwives.

Many midwifery supporters also felt that having a homebirth itself was a way in which all homebirthers were politically active. Evie Diaz, one of the few low-income homebirth mothers I interviewed who had become active in statewide organizing efforts and in the legislature, explained, “I just don't get up into what's going on in Washington [politically] because I'm to the point where everything I see (draws a deep breath in) the line between my everyday life and (sighs and looks me directly in the eye) every breath is political and every woman's life it a statement” (personal interview, February 3, 2001). At times, the broader definitions of *political activity* articulated by low-income homebirthers put them at odds with middle-class organizers who sought more specifically to persuade legislators to change legislation that restricted their access to midwives. Thus, low-income women were not always welcomed when they did attempt to join middle-class homebirthers to advocate for midwives in the legislature or with medical officials. As one homebirth mother whose household income was well above the median income level for her county explained to me: “A couple people would come from more rural counties and be kind of, not really what you wanted there fighting for midwifery because they kind of perpetuated the stereotype” (Jackie Grayson, personal interview, April 10, 2002). Many middle-class and affluent advocates feared that legislators would discount their efforts to decriminalize midwives if they perceived homebirthers as rural and poor, as was historically the case in Virginia as middle-class and affluent women began to go to hospitals in the early to mid-20th century.

For low-income homebirthers, the disapproval of middle-class organizers became a reason many felt that they

could not remain involved in consumer-based advocacy efforts. Queen, for example, whose story about finding her midwife in a parking lot during a time of financial hardship appears above, highlighted her disillusionment with the reception she received when she attended several local meetings of midwifery advocates:

Every time that I [mentioned that] I homebirthed because I was poor . . . this one woman who always stands up [at meetings] and says, "But that's not the only reason," because they don't want to hear that within the movement. I am told not to say it's because I was poor [that I had a homebirth] because that makes you look dumb. . . . Most of the people I've seen in this movement had a lot and have had the opportunity to say they were taken care of by their parents. And I didn't come from that class. I wasn't even brought up to go to college. It wasn't an issue in my house. When I look at people in this movement, they're older, have one child, want to get the most they can out of this experience, and I think that's great, I do. Where I grew up, children were part of life, you didn't dwell about it. You were lucky to have health insurance so you could go to that doctor and do everything that looks good, you know, get [your children] all immunized on time and [make sure] they all looked nice and clean so they could get a good shot of having the teachers at school look at them. . . . The other people [in the midwifery movement] were able to travel, didn't stay in one area, have seen other ways of life, grew up in California and are in Virginia now. . . . It's definitely a social thing of having money, having time to read the books, and be able to take care of yourself. I know it's by the grace of God that I know what I do, because I did not have those opportunities. [personal interview, April 17, 2002]

Stories such as Queen's may also explain why I never witnessed direct confrontation over socioeconomic issues or the use of the term *consumer* in public forums or organizational meetings of midwifery supporters. Many of the low-income homebirthers I interviewed had stopped coming to organizing meetings because they did not feel that their concerns were being heard. Others may have felt intimidated about mentioning financial concerns after experiencing or witnessing interactions like the one Queen described.

Notably, low-income women have not found identification as "consumers" to be a useful strategy to describe their relationship to the state, particularly because it does not defend them against state intervention in their lives for making "bad (consumer) choices." As Queen explained, this has had direct implications for who has felt entitled to become involved in the midwifery movement. Low-income women have been caught in a difficult position as supporters of midwives. Although efforts to show that midwives serve a variety of diverse communities have included poor women—at least statistically—in legislative debates, efforts to silence discussions of poverty among grassroots organizers has left them outside what many described as the more "mainstream midwifery movement." Under neoliberalism more broadly, individuals are expected to contribute to civil society by uncritically accepting the privatization of formerly state-sponsored programs and the consumerization of all aspects of life (Hyatt 2001:205). Consequently,

it becomes the consumer who effects change through the market, not the citizen who effects change through political engagement. Despite the rhetoric of universal rights for all citizens, the state denies access to basic rights to those who do not consume enough and are thus not deemed fully qualified as citizens (Evans 1993:5–6). Thus, grassroots organizers attempting to convince legislators to decriminalize midwifery in areas like Virginia have found market-based arguments both strategic and politically efficacious.

It is evident from my interviews, however, that this shift has had deleterious implications—albeit often unintended—for cross-class organizing around reproductive rights. Rather than unifying activists—as was the aim of the feminists and feminist anthropologists who encouraged consumer-based identification in struggles to gain reproductive rights in the 1960s and 1970s—under neoliberalism, the consumer model has highlighted the economic vulnerability of low-income women. Ultimately, the use of both the terms *consumer* and *choice* in the context of women's health care speaks more broadly to whose lives and choices neoliberal policies support and whose they do not. In effect, the meaning of a *right* has changed under neoliberalism, and the state's promotion of "good" citizenship and motherhood as consumer-based identities ignores the state's role in preserving the rights of all citizens. Instead, consumers must rely on the fluctuations of other consumers' desires within the market to ensure their social, political, and economic rights.

CONCLUSION: REPRODUCTIVE FUTURES UNDER NEOLIBERALISM

This article has drawn on my ethnographic fieldwork with midwifery supporters in Virginia to contribute to the anthropological dialogue on consumer-based strategies for gaining (and preserving) reproductive rights. I have argued that midwifery advocates' adoption of consumer-focused advocacy strategies, in the context of the neoliberal promotion of market-based approaches to social and economic justice, has had harmful effects on the emergence of cross-class organizing efforts toward attaining reproductive rights. The emerging tensions between socioeconomically diverse homebirthers reveal multiple meanings for terms like *choice* and for behaviors associated with the consumption of maternity services. Because anthropologists were among the first to promote consumer-based identification among reproductive rights activists, it is also important for us to critically examine the challenges that are emerging with the intensification of "consumer rights" rhetoric as a strategy to gain and maintain reproductive rights under neoliberalism.

Yet what continues to complicate this matter considerably is that homebirthers and midwives have been successful in their efforts to legalize and loosen restrictions on midwives in areas like Virginia. This brings up important questions for feminist anthropologists, particularly those who value the woman-centered care offered by midwives and the increasing interest in midwives across a broad

political, religious, and socioeconomic spectrum of women. Are there ways to harness the power of "consumer rights" efforts toward legislative ends while maintaining the integrity of emerging cross-class coalitions of midwifery supporters? Are feminist notions of "choice" and a woman's "right to choose" becoming diluted under neoliberalism? Are there alternatives to market-based efforts toward reproductive health care reform?

Although some of the women in my study are developing alternative strategies of resistance to medicalized childbirth and state control through the expansion of the definition of *political activity* outside legislative arenas, they also report marginalization within the contemporary "midwifery movement" in North America. This concern is compounded by the recent interest among medical institutions, insurance companies, and the government in the economic possibilities of a "new market" for midwifery services—presumably for women with the economic ability to consume such services out of pocket or with private insurance—which has paralleled the increasing public interest in midwifery and homebirth in recent years (Baer 2001:116; DeVries 1996:137). It is important for both activists and anthropologists to continue to question: Who will ultimately have access to this proliferation of consumer choices?

Perhaps it is time that midwifery supporters, including the scholars who support these efforts, refocus their attention on the shared experiences of homebirthers by highlighting the respect, support, and safe care these women have received from midwives. These arguments are still powerful in organizing efforts and within legislative debates, but the recent intensification of "consumer rights" strategies has eclipsed these shared experiences for some low-income homebirthers. Another strategy that became important in Virginia during meetings of the Governor's Work Group on Rural Obstetrical Care in 2004 involved arguments about how the low cost of midwifery care (relative to physician's and hospital fees for childbirth) could improve women's access to reproductive care in "medically underserved" rural areas. In this case, midwifery supporters from a broad range of socioeconomic backgrounds came together to highlight the importance of midwifery in the improvement of reproductive services more broadly.

Although midwifery supporters represent a unique and proportionally small group of reproductive health care advocates, the experiences within this movement hold important lessons for those who support reproductive rights more broadly. Much like the historical examples of reproductive rights activism that have led to uneven gains for different constituencies of women, contemporary struggles for reproductive rights under neoliberalism have the potential to reproduce divides among women whose reproductive decisions are frequently distinguished not by individualized notions of "choice" but, rather, by unequal economic resources. Ultimately, as reproductive rights are increasingly subject to the whims of a globalizing capitalist economy, it is essential that we continue to critically examine how and whether consumers' rights can intersect with efforts to

secure accessible, low-cost reproductive health care for all women.

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NOTES

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1. *Direct-entry midwives* is an indigenous term to describe non-nurse midwives. This term originated in Europe to refer to midwives who entered directly into the profession, often through apprenticeship, as opposed to those who became midwives through nursing schools. It includes licensed midwives in states where midwifery is legal and regulated, Certified Professional Midwives and Certified Midwives (two national certifications for DEMs; see Davis-Floyd 1998 for a fuller description), and those who label themselves traditional midwives, empirical midwives, community-based midwives, and domiciliary midwives (although the latter term could also refer to a nurse-midwife who attends births in a home setting). The terms *lay midwife* and *untrained midwife* are also widely used by medical and government officials, although most contemporary midwives find these terms offensive (Davis-Floyd 1998). Although the term *DEM* represents a wide variety of birth care practitioners trained and certified in different ways, it is widely understood by grassroots advocates as a coherent group of non-nurse midwives who specialize in attending homebirths.

2. In recent years, the legal status of DEMs has fluctuated dramatically from state to state as midwifery advocates have worked to make their practice legal. At the time of this writing, DEMs are currently licensed, certified, registered, documented, or permitted to work as Certified Professional Midwives (CPMs) in 24 states, including Virginia as of 2005 (CPMs are credentialed by the North American Registry of Midwives). DEMs are legal by judicial interpretation or statutory inference in ten states. They are not legally defined in four states (Virginia was included in this category from 2003 to 2005). In two states, they are legal by statute, but licensure is unavailable. And DEMs are prohibited in ten states and the District of Columbia (Midwives Alliance of North America 2007). In contrast, Certified Nurse-Midwives (CNMs), who practice primarily in hospitals, are legal throughout the United States, although their services are often restricted by legislation that requires physician supervision and limits prescriptive authority. See Davis-Floyd and Johnson 2006 for more information on the status of midwives throughout the United States.

3. I use the term *midwifery advocates* here and elsewhere in this article, as well as the term *organizers*, to refer to participants in my research who were active in grassroots organizations to support midwifery during my study. More broadly, I refer to participants in my study as *homebirthers* (when appropriate) and *midwifery supporters* to distinguish participants who supported midwifery in their communities but did not identify as "political advocates" or "activists" more broadly. I refrain from using the term *consumer* to refer to midwifery supporters, as has become common practice among both midwifery organizers and scholars studying midwifery. Instead, I use this term only when citing participants who used the term *consumer* to identify themselves or other midwifery supporters.

4. Of the midwives in my study, one CNM was practicing in a hospital during my research, two CNMs practiced in a birth center and in clients' homes, and three were underground DEMs who attended only homebirths. Three others were student midwives (one in school to become a CNM and two apprenticing with local DEMs), five were licensed as CNMs but could not currently secure jobs offering birth care services, and two had previously practiced as DEMs but had quit because of the current political and legal climate in Virginia.

5. Although these interviews focused primarily on mothers who had at least one homebirth, I also interviewed political lobbyists and several fathers, grandfathers, and grandmothers who had witnessed the homebirths of loved ones and subsequently become political advocates for access to midwives.

6. All transcriptions are mine, and I am grateful for the assistance of Asan Askin, Anna Inazu, Robbie Kaplan, Janet Gallay, and Emily Tumpson on selected interviews and legislative hearings. I use the following transcription conventions:

[brackets] indicate text inserted for clarity
 (text) within parentheses indicates the actions of the speaker, such as (laughing)
 (...) indicates a pause by the speaker
 ... indicates the omission of text by the author
 text- indicates a word that was abruptly cut off by the speaker

7. Three participants had Ph.D.s, five had master's degrees (four of these were CNMs), eight had completed some graduate work, two had B.S. degrees, five had B.A. degrees, 11 had attended some college, two had high school diplomas, one had a GED, and two had completed a few years of high school.

8. Despite a broad-based acceptance of the advances of medicalized childbirth, Gertrude Fraser (1998:235-236) notes that many African American women did engage in resistant acts or "microbehaviors" to sabotage the medical management of their bodies, such as continuing to employ techniques taught by elders during labor and birth when medical officials were not present.

9. Cases of children being removed from parental custody following unattended homebirths and those attended by underground midwives have occurred across the country during the past few decades (Lapp 1992; Rooks 2004). Although there are no comprehensive national data on these cases, I sent a query to a national list server of midwifery supporters on this issue and received personal stories of child custody cases related to homebirth in Iowa, Massachusetts, Pennsylvania, Rhode Island, and South Dakota. In these cases, state officials often threatened parents with criminal charges of "child abuse" and "medical neglect," and children (both the newborn and older children) were removed from their custody for up to several weeks (see also Katz 1980). State officials often dropped charges against the parents only if they would name their midwife. This evidence was then used against the midwife in ongoing or subsequent investigations (see also Lapp 1992).

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Changing Patterns of Infant Mortality and Maternal Fertility among Pumé Foragers and Horticulturalists

ABSTRACT National census data show that the modern demographic transition—the recent trend toward declining mortality and fertility—is well underway in most countries. A different picture emerges when data from small-scale societies in unindustrialized parts of the world are considered. Many of these small-scale societies are also adapting to rapid changes in their subsistence economies. In this article, we examine the relationship between the pace of acculturation, infant mortality, and fertility levels among Pumé foragers and horticulturalists, two related groups of native South Americans. During the earliest stages of acculturation, Pumé horticulturalists experience not only a rapid drop in infant mortality but also a rise in birth rates. An anthropological view of demographic transitions provides important insight into how small-scale societies are affected by exposure to the labor market economy and has practical applications to effective development initiatives and public health policies. [Keywords: infant mortality, fertility, foragers, South American Indians, Pumé]

MANY FORAGERS AND SUBSISTENCE agriculturalists are currently adapting to initial contact with the labor market economy. These populations concurrently often undergo rapid demographic change. Although important contributions have been made concerning the relationship between economic development and demographic patterns (Chu and Lee 2000; Dréze and Mamta 2001; Lloyd et al. 2000; Nag et al. 1978; Palloni et al. 1996), much of this discussion centers on populations that are already embedded in the labor-market economy, have access to contraception, or have undergone some decline in child mortality and fertility. Considerably less is known about demographic changes among foragers and subsistence agriculturalists who are experiencing permanent settlement and the introduction of food production, market foods, craft production, wage labor, vaccination, and health care for the first time.¹

Large-scale demographic changes are often explained within the context of the modern demographic transition: the trend over the last several centuries toward declining mortality and fertility. From national data, it appears that the demographic transition is well underway in most developing countries. However, a different picture emerges when data from small-scale societies in unindustrialized parts of the world are considered. In this article we introduce de-

mographic data from two ethnically related but economically contrasting groups of native South Americans. The Pumé (Yaruro) are a foraging and horticultural people indigenous to the savannas (*llanos*) of southwestern Venezuela (Besnerais 1948, 1954; Gragson 1989; Greaves 1997, 2006; Leeds 1961; Mitrani 1988; Petrullo 1939). We use individual reproductive histories to examine changes in infant mortality and fertility among recently acculturated Pumé horticulturalists compared to Pumé foragers (see Figure 1).² Our analytic goal is to distinguish between the effects that birth rate and child survivorship have on the potential for population growth. The Pumé data provide an empirical view into demographic changes in a small-scale society adapting to the first stages of acculturation. Such changes are often undetectable from national indices, yet they elucidate the effects that development initiatives and the earliest stages of economic acculturation have on pretransitional societies.

DEMOGRAPHIC EXPECTATIONS IN ECONOMICALLY TRANSITIONAL POPULATIONS

The demographic transition describes population growth responses to different fertility and mortality regimes. In the classic modern demographic transition model, during the pretransition stage fertility and mortality are both high,



FIGURE 1. Savanna Pumé mother and child. (Photo courtesy of Oskar Berger)

keeping gains in population growth in check. During the second stage, mortality drops, primarily child mortality, but fertility remains high, precipitating rapid population growth. In the third stage, fertility also declines and population growth rates fall to pretransition levels. In contrast to pretransition levels, low growth following the transition is regulated by low fertility and low mortality. Although the effects of declining child mortality on the rapid population growth occurring in many transitional populations is well documented (Coale 1974; Livi-Bacci 2001; Pennington 1996), the causes of fertility decline and its relationship with child mortality is less straightforward.

Economists and demographers often model the relationship between economic development and the transition from high to low fertility in terms of the demand for children (Becker 1960; Becker and Lewis 1973; Bongaarts 2002; Easterlin 1978; Lee and Bulatao 1983; Szreter 1993). The demand for children is sensitive to, among other factors, changes in wealth flows across generations (Caldwell 1976, 1977); how wealth and status are intergenerationally brokered (Boone and Kessler 1999; Borgerhoff Mulder 1998; Rogers 1995); changes in parental investments in children's education, skill acquisition, health, nutrition, material goods, and other forms of child quality (Bulatao and Lee 1983; Kaplan 1996; Rosenzweig 1990); the economic contributions of children (Blurton

Jones et al. 1989; Kramer 2005; Mueller 1976; Vlassoff 1979); and the value of maternal education and wages rates (Dréze and Mamta 2001; Lloyd et al. 2000; Low et al. 2002). These diverse and often interrelated explanations for fertility reduction are linked through the concept of the opportunity cost of childbearing or the foregone benefit to a mother to spend her time and resources in other ways. A decline in fertility is predicted when the opportunity cost of childbearing increases because, for example, the payoff to invest in children's education or for mothers to engage in wage labor increases.

Much of what is known and debated about the demand for children and fertility decisions has been formulated with respect to populations that have some access to health care and contraception, are committed food producers, and are involved in the market economy through wage labor, cash cropping, and food purchase. At the national and regional level, fertility has fallen in developing nations, in many cases dramatically, from pretransition levels of five to seven children. However, in small-scale societies, the earliest stages of acculturation may present a very different situation, one in which many hunter-gatherers and horticulturalists find themselves. Here we take a different tack and ask what happens during the first phases of acculturation when constraints on fertility are relaxed because the opportunity costs of childbearing either do not change or decline. Under these conditions we expect that child mortality will drop, but birth rates will remain at pretransition levels or even increase, having a punctuated effect on population growth.

The Pumé are an ideal population to use to test these expectations because foraging and horticultural communities differ with respect to subsistence, food reliability, consumption of market foods, and sedentism. As a single ethnic group inhabiting the same general environment, they provide critical analytic control through similar genetic background and disease exposure. Neither group has ready access to clinics, regular health care, or vaccination programs. This allows us to examine how infant mortality and fertility vary while holding access to modern health care effectively constant.

THE PUMÉ

The Pumé are a group of native South Americans who have inhabited the llanos of southwest Venezuela for at least the past several hundred years, where they were documented by early European explorers (Carvajal 1956; Gilij 1965; Gummilla 1963). Today there are about 7,000 Pumé. Those who live along the Capanaparo, Cinaruco, and Riecito Rivers reside in permanent villages and have a mixed subsistence base of fish, manioc horticulture, animal husbandry, wild foods, and occasional wage labor. In contrast, the Pumé who live in the savannas between these major river courses are mobile foragers, subsisting on hunting, fishing, wild root and mango collection, and, to a much lower extent, manioc horticulture. These differences in economy, mobility, and



FIGURE 2. River (squares) and savanna (circles) Pumé study communities.

lifestyle are recognized by the Pumé, who use the terms *savanna Pumé* and *river Pumé* to distinguish their communities (see Figure 2).

The river Pumé were first ethnographically described in the 1930s (Petrullo 1939) and then again in the 1960s (Leeds 1961, 1964). Subsequently, the majority of ethnographic work has focused on the largest and most acculturated Spanish-speaking river villages in the region. The savanna Pumé have been ethnographically documented through long-term time allocation studies by Ted Gragson in the 1980s (Gragson 1989) and Russell Greaves from the 1990s into the 2000s (Greaves 1997, 2006; Hilton and Greaves 2004). Greaves has worked in savanna Pumé community of Dora Aná since 1990. In 2005, a new demographic and economic project expanded study into several additional foraging and horticultural communities. The study villages are in close geographic proximity, situated within a 400-square-kilometer area and are no more than half a day's walk apart. The following describes the savanna and river Pumé as observed in the study communities during 2005 and 2006.

Savanna Pumé

In response to hyperseasonal fluctuations in rainfall, the savanna Pumé move several times throughout the year between dry and wet season camps. In one community, six main camps were documented during the 2004–05 seasonal round. During the six-month dry season, subsistence is centered on fish, which are concentrated in restricted pools and small segments of streams, and on mangos. Groves of introduced mangos trees, although distant, have been incorporated into the savanna Pumé foraging radius. Dry season camps are located adjacent to streams and lagoons for access to water. Related nuclear families live in clusters of ephemeral brush shades.

When the llanos flood during the wet season, the savanna Pumé move their camps to higher ground and families aggregate in more substantial thatch houses (Gragson 1989; Greaves 1997, 2006; Mitrani 1988). Fish are dispersed and difficult to locate during the wet season, and the resource base shifts to small game, wild roots, and manioc. Garden foods are consumed during part of the wet season, when they supply about 35–40 percent of daily calories. Gardens are small and bitter manioc is the only successfully cultivated food crop. Substantial amounts of wild roots are collected throughout the horticultural season (Gragson 1989; Greaves 1997) to supplement bitter manioc, which is a low-quality carbohydrate. Poor agricultural soils and low resource density and diversity contribute to the generally impoverished savanna Pumé diet. Nutritional stress, which can be extreme in some years, is most pronounced during the wet season when protein and fat are in short supply.

River Pumé

The river Pumé were semimobile until about fifty years ago. They now inhabit single villages year-round, although periodically they occupy temporary fishing camps during the dry season. Fish in the major rivers are larger, occur in greater density, and can be caught over longer periods of the year and in sufficient quantity to produce a surplus for trade. Soils adjacent to the rivers are more fertile than in the savanna interior, and river Pumé gardens are more extensive, producing higher returns and a greater variety of plant foods. Some river communities also raise small numbers of domesticated chickens and pigs. The river Pumé are well nourished compared to the savanna Pumé and experience little seasonal variance in food availability.

Historically, the river Pumé have had more contact with influences from outside the llanos than have the savanna Pumé. The rivers are the major transportation routes into the region during the wet season. Although no permanent roads exist in most of Pumé territory, temporary two-tracks follow the river courses, permitting some vehicular travel during the dry season.

Differences in Economic Acculturation

The migration of Venezuelan nationals into the region to establish small family ranches accelerated in the 1960s. Conflicts periodically erupt between the Pumé and ranchers over land and resource claims. Although the Pumé are concerned about encroachment on their traditional lands, tensions are tempered by the access ranches provide to market goods. Because the ranches are situated along the major rivers, opportunities for trade, wage labor, and access to market food are greater for the river Pumé as compared to the savanna Pumé. This contributes to reduced seasonal variation in food availability and lower food stress among the river Pumé.

Ranch work is occasional and sporadic: 47 percent of savanna men and 73 percent of river men report having spent at least one day over the past year in wage labor

(24 percent of savanna men and 63 percent of river men report having spent more than five days over the past year). No savanna women engage in wage labor. Very few river women occasionally work as domestics on local ranches. Labor is paid for in food and other consumables. The river Pumé generally earn higher wages and may occasionally receive cash as payment, which was not reported by any savanna Pumé during the 2005 economic survey.

A trade network between the savanna and river people likely has been in place since the Pumé have lived in the area. However, the nature of the commodities traded has changed over time. Small family groups travel between the river and savanna, visiting relatives and exchanging goods primarily during the dry season when movement is easy. Nonlocal goods (clothing, pasta, rice, metal tools, cookware, and soap), which are more common in river communities, are traded for raw materials from the savanna. Tools and clothing are well worn by the time they reach the savanna interior, where they are exchanged for arrowcanes, fiber, resin, weaving materials, and finished arrows.

Although savanna and river communities differ in their access to market foods and other goods, none of the five villages included in this study has a school, health clinic, store, electricity, or well water, nor are they able to be reached by a permanent road or scheduled transportation. The majority of both savanna and river Pumé are monolingual, with only four percent savanna and 24 percent river Pumé reporting a rudimentary understanding of Spanish. Very few river Pumé (three percent) and no savanna Pumé report having attended school.

Because of their proximity to major transportation routes, the river Pumé's contact with the regional and national economy is now increasing. In contrast, nominal economic change has occurred in savanna communities since the last long-term study (Greaves 1997). Although most government projects target the larger, more acculturated Pumé towns, the river study communities receive some periodic assistance. Most apparent during 2005–06 was the distribution of food through government-sponsored programs in river villages and the absence of such assistance in savanna communities.

Both the savanna and river Pumé live in a malarial environment. Other significant diseases in the region include measles, yellow fever, Chagas disease, tuberculosis, and other respiratory diseases (Kramer and Greaves 2005; Lizarralde and Seijas 1991). Diarrhea is a primary cause of children morbidity and mortality. Daily variance in food availability, seasonal malnutrition, and chronic intestinal parasite loads no doubt have a synergistic effect on higher morbidity and mortality at all ages among the savanna Pumé compared to the river Pumé. Neither the savanna nor river study communities routinely receive medical intervention and immunizations, nor do they have access to contraception. Health care visits are sporadic and more frequently target river communities. Although these visits are

occasional, they may nonetheless confer a positive effect on survivorship.

THE PUMÉ SAMPLE AND DATA COLLECTION

During the 2005 and 2006 fieldwork, censuses and reproductive histories were collected in three river horticultural and two savanna foraging Pumé villages. All households in each of the study communities participated in the data collection. The sample consists of 426 individuals: 203 males and 223 females. Interviews were conducted by Greaves in the Pumé language. Individuals were asked about their age and marital status, and then to list their siblings, parents, spouses, and children from each marriage and to indicate whether these individuals were living or deceased. The Pumé are forthcoming about previous marriages, children from previous marriages, deceased children, and spouses. Parents were asked to include infants who had died very young in their list of children. Because of the difficulty in obtaining consistent information about miscarriages, the following analyses include only full-term births in fertility measures.

Working with anthropological populations on demographic issues poses certain methodological challenges (Fricke 1994; Hill and Hurtado 1996; Howell 2000; Weiss 1975). The Pumé exemplify some of these problems. They live in small communities, do not keep vital records, differentiate ages by life stages rather than calendar years, and do not reckon social relationships in kin terms that distinguish biological from classificatory parents, siblings, and offspring. The villages included in this demographic survey range from 70 to 150 individuals. To compensate for the random fluctuation in vital rates inherent to small samples, the following analyses pool data from the two savanna villages to compare to the pooled data from the three river villages.

Constructing reliable reproductive histories depends on collecting precise ages and counts of children-ever-born to a mother. Parents can accurately report the ages of young children by moon or season counts up to four years. Because the Pumé do not keep written births or death records or have an absolute means for aging, several methods were used to improve the age estimates of older children and adults (Hill and Hurtado 1996; Howell 2000; Kramer 2005; Pennington and Harpending 1993). Rather than only interviewing the head-of-household, each household member old enough to respond (at least ten years of age and older) was interviewed about their parents, siblings, and children. Asking multiple relatives about kin relations and to list siblings and children in birth-order rankings provided a check for information consistency and whether further questioning was needed. Although only summary counts from national enumerations are available for most Pumé villages, detailed censuses (name, age, sex, and kin relation) were collected several times in the study communities during the mid-to-late 1980s and in the early 1990s (Greaves n.d.; Lizarralde n.d.). These provide a baseline to anchor ages of most individuals over the age of 12.

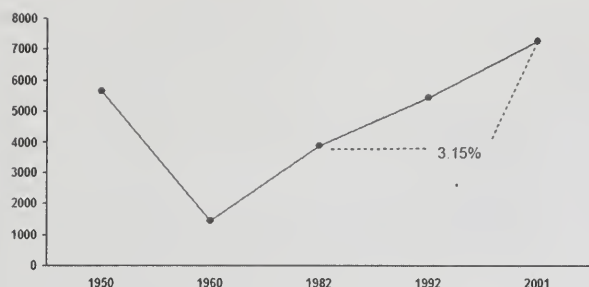


FIGURE 3. Pumé population growth 1950–2000. Sources: Based on aggregate data for all Pumé: 1950 census (Fuchs 1978, table 1); 1960 census (Fuchs 1978); 1982 census (Oficina Central de Estadísticas e Informática [OCEI] 1985); 1992 census (Oficina Central de Estadísticas e Informática [OCEI] 1995); and 2001 census (Instituto Nacional de Estadística-Apure 2001).

Multiple questioning and birth rank responses also were a useful check to verify that reproductive histories included a complete count of a mother's children. Pumé mothers assiduously list their children and whether deceased children were infants, young children, or subadults when they died, using developmental markers such as weaning, walking, talking, tooth eruption, and menses. However, documenting a specific age at death (rather than by developmental stage) was more problematic because the Pumé do not consistently recall ages or elapsed time beyond about four years. Deceased infants whose parents could not give age at death in moon counts were identified as children who were breastfeeding but not walking. Observationally, children with known ages begin to walk at one year old. Consequently, in the following analyses, mortality measures are based on frequencies across a mother's reproductive career rather than timing effects such as birth order and interval. To construct reliable age composition, fertility, and child mortality profiles, we build on the strengths of multiple censuses, initial rates recorded between censuses, and reproductive histories collected in 2005 and 2006. Because what is known about forager demography is limited to such few groups, we focus on intuitive empirical measures rather than model indices. All analyses were performed in SAS (ver. 9.1).

RETROSPECTIVE POPULATION TRENDS

Past indigenous censuses are available only as aggregate counts and show a dramatic decline in population from the 1950s to the 1960s (Besnerais 1954; Fuchs 1978), followed by an appreciable and continuing rise in growth beginning in the 1980s (see Figure 3). The magnitude of the drop in population from the 1950s to 1960s is likely because of incomplete census data. Comparable and reliable censuses were collected in 1982 (Lizarralde and Seijas 1991:10; OCEI 1985:38) and 1992 (OCEI 1995:32).³ These data indicate that population growth among the Pumé is occurring at a rate comparable to the fastest growing regions of the world. However, in the absence of village-based vital

rates, it raises the question of what dynamics underlie this growth and whether it is evenly distributed across Pumé communities.

Comparing the age composition of river and savanna communities is a heuristic means to observe general trends in fertility and mortality (see Table 1). As constructed from our 2005 demographic data, the broad base of the age-sex pyramid and the relatively higher representation of young children in river communities compared to savanna villages reflects the higher proportion of the population under the age of 15.⁴ Community type is significantly associated with age distribution ($\chi^2 = 11.1628$, $df = 1$, $p = .0008$), with river communities having a greater proportion of children relative to adults than savanna communities. Median age, another heuristic summary of a population's age structure, is 13 for river Pumé compared to 20 for the savanna Pumé.⁵

The lower median age, the comparatively broad-based pyramid, and higher proportion of the population under the age of 15 indicate that the river Pumé are a younger population. This is often interpreted as characteristic of a high fertility and fast growing population. However, populations also can grow younger through a shift in the age groups most affected by mortality changes (Namboodiri 1996). For example, when a mortality decline disproportionately affects younger ages, the number of young individuals alive in a population increases relative to older people. The age structure hints at either mortality or fertility differences between the savanna and river Pumé. In the next step, we clarify these trends.

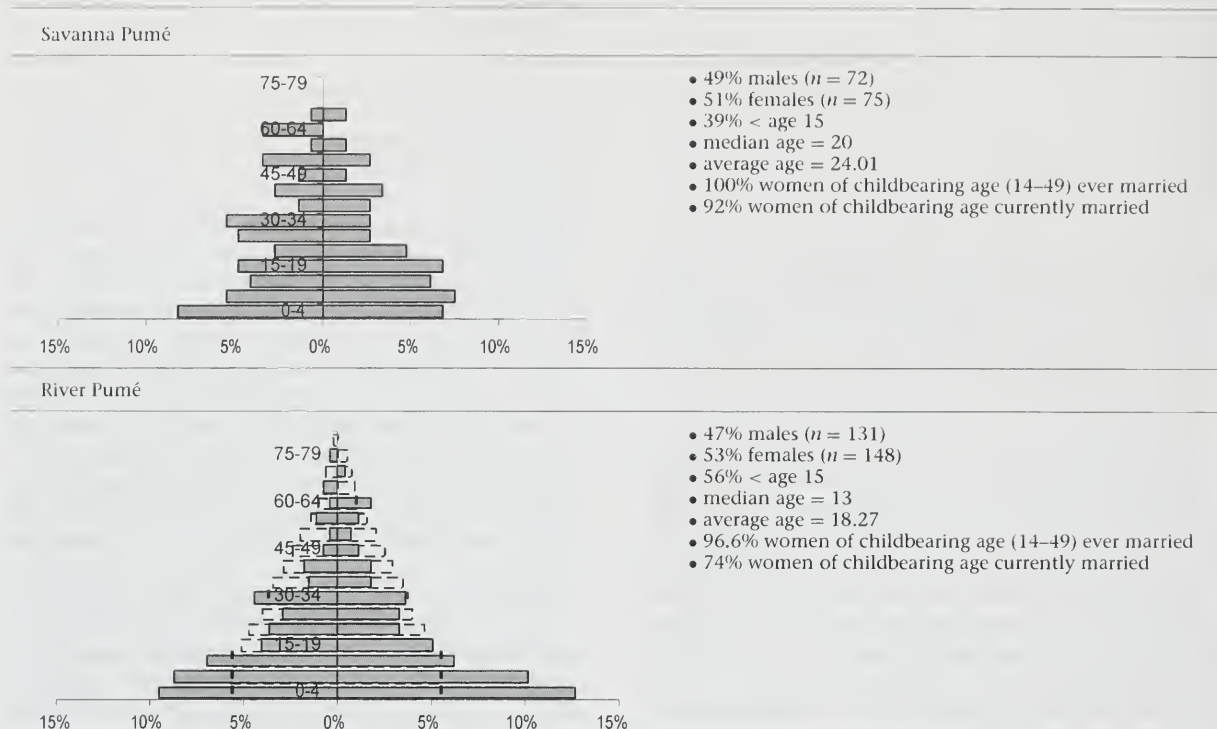
Because previous reproductive history data and vital records do not exist, we cannot directly analyze diachronic patterns. Given that changes in mobility, subsistence, access to market foods, and wage labor are very recent among the river Pumé, it is reasonable to interpret these demographic contrasts as associated with the transition from a foraging to an increasingly acculturated way of life.

PUMÉ POPULATION DYNAMICS

In the following sections, we use several corroborating lines of evidence to investigate the dynamics underlying savanna and river population age structure. These include cohort and period fertility, parity progressions relative to infant mortality and birth intervals. When using small-scale data, unambiguous interpretation of a single result can be spurious. To avoid reliance on limited criteria, each of these measures approaches fertility and mortality from a slightly different perspective and together builds a comprehensive picture of savanna and river Pumé demographic trends.

Reproductive Environment

Although the savanna and river Pumé differ in subsistence, sedentism, and acculturation, their background reproductive conditions are similar. Pumé girls reach menarche at a young age: river girls at about age 13, and savanna girls at a slightly younger age (Kramer n.d.). Girls in both savanna and river Pumé communities marry young:

TABLE 1. Pumé age composition based on 2005 census data.

Note: Proportion of total population shown for males on right, females on left; Venezuelan age distribution shown on the river Pumé pyramid (World Health Organization 2006).

95 percent of girls marry by age 15. Girls may marry when premenstrual, although in such cases coital relations are not begun until after menarche. These early marriages often are brittle, and either partner may instigate divorce. Of girls ages 13–18, although 97 percent have been married, only 80 percent are currently married. The proportion of married women is higher among savanna Pumé, but the difference within age group is only significant among postreproductive women 45 and older ($p = .0391$). Primary sterility appears to be relatively uncommon. Within our sample of women 40 and older ($n = 34$), only one woman has not given birth.

Serial monogamy is the predominate marriage pattern, although a small proportion of marriages are polygamous (see Table 2). Matrilocality is common, and matrilineal form a strong social foundation among the Pumé. Inter-marriage occurs between savanna and river Pumé communities, but marriage partnerships more often are formed between village members or exogamously across savanna or river communities.⁶ Modern contraception is unavailable to both savanna and river Pumé women. Children are breastfed on demand, given supplemental foods at about six months, and fully weaned by two-and-a-half to three years old.⁷ Both the savanna and river Pumé are natural fertility populations, and given no substantial differences in marriage patterns, marital relations are

not expected to be an important source of variation in determining fertility patterns.

Fertility Patterns

Total fertility rates (TFR), because they are less sensitive to age structure than crude birth rates and general fertility rates, are the most ubiquitous measure to compare patterns across populations. A TFR, which can be thought of as the mean number of children born to a mother by the end of her reproductive career, can be constructed either as cohort or period rates.

The most accurate means to construct a cohort rate is to follow a group of women in the same birth or marriage cohort as they pass through their reproductive careers, documenting births and deaths as they occur. Because 30-year

TABLE 2. Pumé marriage patterns (number of times males and females report having been married and polygamously married either currently or in the past)

	Number of Marriages				Polygamously
	1	2	3	4+	
Savanna Pumé ($n = 94$)	74%	23%	1%	1%	11%
River Pumé ($n = 115$)	80%	17%	1%	2%	4%

TABLE 3. Indicators of fertility and mortality in Pumé communities.

Indicator	Savanna Pumé	River Pumé
Age-specific Fertility ^a		
15–19	1.143	1.214
20–24	1.875	1.889
25–29	1.500	1.778
30–34	1.333	1.273
35–39	1.000	1.000
40–44	0.556	0.600
Total Fertility Rate	7.407	7.754
Mean Number of Births ^b		
to women ≥ 15	4.88 (std = 3.28, $n = 48$)	4.86 (std 3.21, $n = 65$)
to mothers	5.32 (std = 3.06, $n = 44$)	5.11 (std = 3.07 $n = 62$)
Infant Mortality Rate ^c	346	132

^aPeriod rates are calculated as number of births over the past five years to savanna ($n = 38$) and river Pumé ($n = 53$) mothers.

^bDifferences between river and savanna groups are not significant ($p = .9904$ for mothers and $p = .8581$ for women).

^cDeaths per 1000 live births to savanna ($n = 34$) and river ($n = 492$) Pumé mothers 15–45.

longitudinal studies are impractical, cohort rates are most often collected by interviewing women in the same cohort about their parity to date. A cohort TFR is the completed fertility of women who are past reproductive age; it summarizes fertility conditions over a woman's 30-year reproductive career.

Period rates are constructed cross-sectionally from the numbers of births that have occurred over some period of time, usually within a calendar year, to women in different age groups. A period TFR, which is the sum of these age specific fertility rates (ASFR), estimates a woman's lifetime fertility based on this synthetic cohort. Period measures reflect current conditions and are used to project future population trends, assuming that those conditions will persist throughout a woman's reproductive career.

Period rates are constructed from censuses and summary counts of births for a population. Cohort rates are built from individual retrospective or longitudinal interview data. Each perspective captures a somewhat different view of fertility trends and is appropriate depending on the research question and the relative importance of period (historic events) or cohort (age effects) influences on fertility (Preston et al. 2001). Both are presented here for comparative purposes to give insights into the stability of vital rates and recent demographic trends.

Period ASFRs for both the river and savanna Pumé depict a characteristic fertility distribution where rates rise during the teens, reach a peak during the twenties, and then begin to fall (see Table 3). TFRs of 7.407 for savanna women and 7.754 for river women are high but within the range for other natural fertility populations (for overviews, see Bentley et al. 1993a; Campbell and Wood 1988). The Pumé TFRs are substantially higher than national levels (Venezuela's TFR = 2.7), which are determined primarily by low fertility in dense urban centers (87 percent of Venezuela's population lives in coastal centers; see Population Reference Bureau 2006). Mean number of births is similar for river and savanna females. Mean values are lower than TFRs because they average births over women of all ages,

not only those who have completed their reproductive careers.

Cohort fertility rates are shown in Figure 4. In most age groups, river women have slightly higher fertility, but those differences are not significant. For women 40 and older, savanna women have a cohort TFR of 7.4 ($n = 16$) and river women a TFR 7.28 ($n = 18$); the difference is not significant ($p = .9060$).

Period and cohort measures of fertility are equivalent when other demographic rates within a population remain fairly constant over time (Preston et al. 2001). For the savanna Pumé, the similarity between cohort (see Figure 4) and period (see Table 3) fertility suggests that mortality rates and the age pattern of childbearing have not appreciably changed in the recent past. In contrast, the river Pumé exhibit slightly higher period ASFRs for younger women and higher TFR compared to cohort estimates, suggesting that birth and death rates may have shifted in recent years.

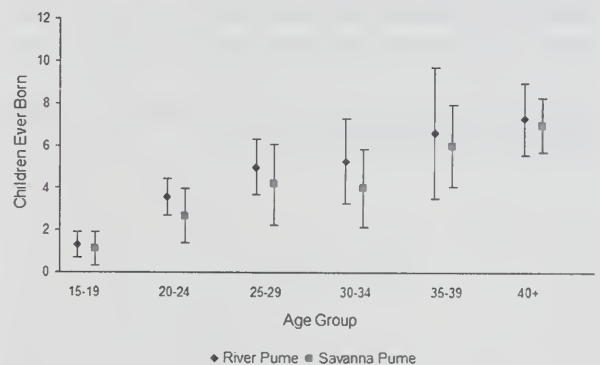


FIGURE 4. Age-specific completed fertility. A cohort rate constructed from the number of *children-ever-born* to river ($n = 62$) and savanna ($n = 48$) Pumé women. Error bars show confidence intervals.

TABLE 4. Infant mortality experience of Pumé mothers ages 15–25.

	# Infant Deaths per Mother			
	0	1	2	3
Savanna Pumé (<i>n</i> = 17)	35%	29%	24%	12%
River Pumé (<i>n</i> = 20)	65%	25%	10%	—

Infant Mortality

Significant differences emerge when we look at the child mortality experiences of Pumé mothers. The infant mortality rate (IMR)—relative frequency of deaths in the first year of life per 1,000 live births—is nearly three times greater among the savanna Pumé compared to the river Pumé (see Table 3). Of the few groups of mobile foragers for whom IMRs have been documented, the savanna rate (346) is higher than that for the Hadza and Ache (210 and 120, respectively) and similar to IMRs reported for the Agta and the Asmat (370 and 340, respectively; see Pennington 2001). The savanna Pumé IMR is slightly higher than rates reported for the Hiwi (Hill et al. 2007), foragers who live adjacent to Pumé territory along the Venezuelan–Colombian border. The river Pumé IMR of 132 represents a considerable drop in infant mortality compared to savanna forager rate but still far exceeds the national Venezuelan IMR of 19.6 (Population Reference Bureau 2006).

A closer look at infant mortality shows that many more river Pumé mothers never experience an infant death and far fewer experience multiple infant deaths than savanna mothers (see Table 4). The probability of an infant death is related to a mother's exposure to giving birth. To account for the possibility that young river mothers have fewer infant deaths because they have given birth to fewer children, mortality levels are tabulated with respect to parity (see Table 5). In this case, we limit the sample to 15- to 25-year-olds to increase data quality of pairing infant deaths to parity. At all parities, savanna mothers 15 to 25 are more likely to have had an infant death than river mothers. For example, by parity 2, 40 percent of river women have experienced at least one infant death, whereas 60 percent of savanna women have. By parity 5, only 50 percent of river

TABLE 5. Proportional distribution of infant mortality per woman by parity for Pumé mothers ages 15–25.

# Infant Deaths	Parity ^a				
	1	2	3	4	5
Savanna Pumé (<i>n</i> = 17)					
0	.67	.40	.33	.25	—
1	.33	.40	.33	—	.50
2+	—	.20	.33	.75	.50
River Pumé (<i>n</i> = 20)					
0	.80	.60	.50	.75	.50
1	.20	.20	.25	.25	—
2+	—	.20	.25	—	.50

^aNo woman 15–25 has had more than five children.

mothers have had at least one infant death, whereas all savanna women have. Holding parity constant, the disparity in infant mortality between the savanna and river Pumé is substantial.

Because previous reproductive history data do not exist, we cannot directly measure how recently infant survival has improved among the river Pumé. Infant mortality figures presented here are based on the last five years of a woman's reproductive history, when recall is at its best. The rates are expected to reflect general secular trends. A measles outbreak did occur 20 years ago, with losses greatest in the larger river communities (Lizarralde and Seijas 1991). Although few measles deaths occurred in the study communities, in small populations this could have noticeable effects. Interviews and reproductive histories indicate that no epidemics, famines, or episodic mortality events have occurred in the last five years.

In sum, infant mortality is considerably lower among the river Pumé and remains very high, at pretransition levels, among the savanna Pumé. The higher ASFRs at younger ages and the higher period compared to cohort TFR suggest that a shift in childbearing patterns is also occurring among the river Pumé. One means to further examine this trend and discern between the effects that birth rate and child survivorship have on population growth is to look more closely at the biological relationship between infant mortality and fertility.

CHANGES IN INFANT MORTALITY AND BIRTH RATES

The biological mechanisms linking infant mortality and birth interval length provide an indirect means to evaluate the extent to which the river fertility rate is attributable to a change in the pace of reproduction distinct from the biological effects that lowered infant mortality has on fertility. Studies consistently demonstrate that, in natural fertility breast-feeding populations, the average duration of a birth interval is substantially shorter following an infant death than when an infant survives because of the positive effect that lactation has on postpartum amenorrhea and subfecundity (Chowdhury et al. 1978). For example, studies among noncontracepting, historic European populations show that the physiological effect of an infant death reduced the length of a birth interval by as much as ten months (Knodel 1978). An extensive cross-cultural study found that birth intervals are on average 60 percent longer following the survival of a child than an infant death (Grummer-Strawn et al. 1998). Furthermore, the effect of breast-feeding accounted for most of this difference. Birth control, the level of women's education level, and wage labor participation tend to be associated with decreased periods of lactation. However, none of these factors are present among the Pumé and therefore do not influence birth interval length.

Birth interval length is estimated from the number of live births over the past five years and years-at-risk of pregnancy. For Pumé mothers 15 to 40, savanna women have a

TABLE 6a. GLM model results testing the effect of community type on *children-ever-had* after controlling for age and infant deaths for Pumé mothers 15–40 ($n = 73$).

Variable	Parameter Estimate	Pr > t
Intercept	−3.07043	.0003
Age	0.23610	<.0001
Infant deaths	0.68658	.0016
Community type	0.77764	.0846

Note: Model $R^2 = .5706$, $p \leq .0001$.

live birth on average every 3.1 years (42 births, 130 years-at-risk $n = 28$) and river women have a live birth on average every 2.87 years (70 births, 201 years-at-risk $n = 44$). The pattern is similar for women ages 15 to 25. River women have slightly shorter birth intervals on average, suggesting that the biological effect of lowered mortality on lengthening birth intervals has been more than offset by an increase in the pace of child bearing.⁸

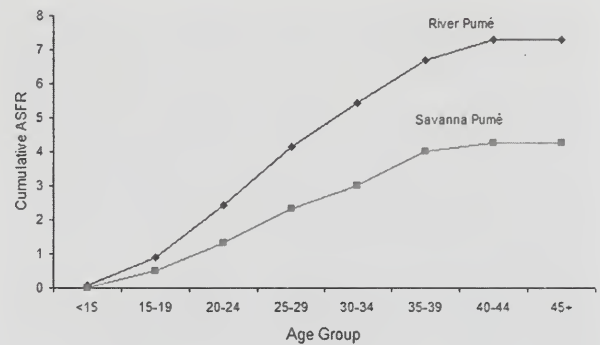
To assess whether fertility based on a mother's infant mortality experience varies between river and savanna women, we construct a multivariate general linear model (GLM) controlling for mother's age and infant deaths. Seventy-three mothers ages 15 to 40 were included in the model. Results show that fertility increases with infant mortality experience and age. But whether a woman is from a savanna or river village (community type) falls out of the model as insignificant in explaining variation in children-ever-born (see Table 6a). Community type, however, is significant in explaining variation in the number of surviving children (see Table 6b). After controlling for age, river women have significantly more surviving children ($p = .0006$).

A decline in infant mortality can affect population growth in two confounding ways. First, because the interval to the next birth is longer when a child survives, it can be negatively associated with fertility. Among the river Pumé, a decline in infant mortality is demonstrable but has not led to longer birth intervals and lower fertility. Second, the drop in infant mortality increases the number of children who survive to reproduce in the next generation. To examine the potential effect that differences in child survivorship may have on population growth, we construct a period ASFR of surviving children (see Figure 5). Given the assumption underlying the construction of period rates that current conditions will persist throughout a woman's repro-

TABLE 6b. GLM model results testing the effect of community type on *surviving children* controlling for age for Pumé mothers 15–40 ($n = 73$).

Variable	Parameter Estimate	Pr > t
Intercept	−2.73984	.0004
Age	0.17791	< .0001
Community type	1.37338	.0006

Note: Model $R^2 = .4728$, $p \leq .0001$.

**FIGURE 5.** Age-specific surviving Pumé fertility: a period rate constructed from surviving children born to women over the past five years ($n = 113$ females 14 and older).

ductive career, river women have a TFR of 7.27 surviving children and savanna women have a TFR of 4.25 surviving children.

By standardizing for the probability of surviving to age 15, an estimated 79 percent of the increase in the river Pumé TFR compared to the savanna Pumé can be attributed to gains in children surviving to reproductive age and 21 percent to an increase in birth rates. Thus, the effect of fertility levels on population growth is disproportionately greater among the river Pumé both because of gains in child survival and to an increase in the pace of reproduction.

DISCUSSION

Demographic transition research has placed central importance on fertility reduction, and specifically its relationship to child survivorship (Cheland 2001; Doepke 2005; Montgomery and Cohen 1998; Notestein 1953; Preston 1978). Because infant mortality is a strong predictor of fertility decline as developed nations pass through demographic transition (Heer and Smith 1968; Schultz 1976), as mortality declined, fertility was expected to fall, as parents had fewer children to achieve a target family size of surviving children (Freeman 1963). Continued research indicated that the relationship is far from straightforward (Cantrelle et al. 1978; Taylor et al. 1976; van de Walle 1986). In some cases mortality decline does not appear to be a precondition to the fertility decline, and in many populations fertility did not fall as quickly as anticipated (Lindert 1980; Montgomery and Cohen 1998).

Implicit in many discussions about child loss and fertility is the assumption that lower fertility is universally desired. Yet, some of the highest fertility rates documented in natural fertility populations occur when traditional societies undergo initial economic transition (Early and Headland 1998; Hill and Hurtado 1996; Kramer and McMillan 2006). The Pumé results add to these studies by demonstrating that population growth during the earliest stages of economic acculturation occurs through not only higher child survival but also an increase in birth rates. Rapid

population growth as an outcome of death rates dropping more quickly than birth rates is well documented. However, a rise in birth rates as a distinct trend is underreported (Dyson and Murphy 1985; Kramer and McMillan 2006; Romaniuk 1980). It is, however, a potentially important component of population growth and perhaps not an uncommon consequence of economic development, the introduction of government assistance, and other development initiatives.

When constraints on fertility are relaxed and there is no concomitant rise in the opportunity costs of childbearing, parents appear to maintain or even further reproductive effort. In the absence of the means to achieve target fertility levels or structures supporting a reduction in the demand for children (e.g., increased wage rates, returns to formal education or to investment in skill or improved social status; see Becker 1981; Blurton Jones et al. 1989; Caldwell 1983; Hill and Kaplan 1999; Kramer 2005), river Pumé mothers do not downwardly adjust their fertility levels. Although river mothers have experienced a significant decline in infant mortality, this does not account for all of rise in fertility. This suggests that during the early stages of acculturation, period effects are introduced that not only ease constraints on child mortality but also make conditions more favorable for mothers to increase birth rates.

Period Effects on Child Survivorship and Fertility

The savanna and river Pumé live in the same environment, are genetically related, and have led comparable lives until recently. They are now distinguished by important differences in their contact with influences outside their subsistence economy. As the river Pumé transition economically, they experience period effects that have a positive influence on both child survivorship and birth rates.

Until recently the river Pumé were seasonally mobile, but they are now sedentary and more reliant on horticulture. Although it is widely held that circumstances associated with food production and sedentism have a positive effect on fertility because the constraints of foraging mobility on birth rates are relaxed, cross-cultural empirical data do not support this expectation (Kramer and Boone 2002; Pennington 2001). If sedentism is indeed a decisive factor affecting TFRs, we would expect horticulture to be a clear landmark in fertility increase. However, a number of cross-cultural studies show that horticulturalists do not have significantly greater fertility (Bentley et al. 1993b; Campbell and Wood 1988), suggesting that sedentism alone does not account for an increase in river Pumé fertility.

Neither savanna nor river Pumé villages have clinics or are regularly visited by health care workers, and we can hold exposure to modern health care effectively constant. For example, of children aged ten years and younger, 38 percent of savanna children and 48 percent of river children report ever having received a vaccination; this difference is not significant ($\chi^2 = 1.1088$, $df = 1$, $p = .2923$). This supports other findings that initial gains in survivorship are due less

to medical intervention or vaccination than to the results of improvements in food supply, living standards, and the introduction of simple items such as soap that vastly improve sanitation conditions (Finch and Crimmins 2005; McKeown 1977). Although neither group is regularly visited by health care workers, the river Pumé overwhelmingly benefit from the limited health care that does reach the area, and even sporadic medical attention can make a difference in mortality rates.

The most far-reaching period influence, however, is food supply. The greater reliance on horticulture, fishing, market foods, and government assistance buffers the river Pumé against the pronounced daily and seasonal variation in food supply common in savanna communities. This affects both fertility and mortality in several significant ways.

First, children—especially young children at the age of weaning—are particularly susceptible to shortfalls in food supply. Greater accessibility of agricultural and market foods improves the diets of young children, less through absolute availability than by reducing the periodicity and amplitude of nutritional stress. Cross-cultural evidence suggests that among traditional populations, improved children's diets can introduce substantial gains in survival (Pennington 1992, 1996). Second, fluctuations in daily food availability and seasonal nutritional stress can affect female reproductive function. Although the specific biological mechanisms are not fully understood, periodic variation in adequate nutrition alters the energy budget available to allocate to lactation and to the resumption of reproductive function following a birth (Jasienska 2001; Lunn et al. 1984; Rosetta 1995; Sellen 2000). Resolving shortfalls in food supply may affect the duration of postpartum subfecundity and help explain the shorter birth intervals among the river Pumé. Third, although young nursing infants are buffered to some extent from disease and malnutrition, after supplemental foods are introduced at about six months, maternal condition does affect infant health and well-being. Lactation under suboptimal dietary conditions, which savanna women experience for half of each year, can lead to substantial weight loss in lactating women (Sellen 2000). Anthropometric data collected in 2006 show that savanna women experience a body mass decline during their prime reproductive years. Repetitive cycles of pregnancy and lactation may compound the effects of annual nutritional stress. Savanna women undergo a mean weight decrease of eight percent (~4.4 kilos) during the wet season. River women have greater access to market foods, are considerably better nourished, are relatively plumper than savanna women, and do not experience an equally severe seasonal weight loss.

Maternal energy depletion can have long-term effects on both maternal and infant health (Little et al. 1992). Nursing infants are particularly susceptible to gastrointestinal diseases after they are introduced supplementary foods. Infants exclusively fed breast milk are at considerably reduced risk of diarrhea compared to infants who are introduced to

supplementary foods (Brown 2003). Furthermore, infants with inadequate weaning diets can suffer growth faltering after six months (Sellen 1998).

Last, dietary condition has a synergetic relationship with disease resistance not only for children but also adults. Although infectious disease is endemic to both savanna and river Pumé, seasonal malnutrition and daily variance in food supply exacerbates morbidity among the savanna Pumé. Long-term historic studies of cohorts show that adults who have greater exposure to infectious disease at young ages have higher rates of morbidity and mortality (Bengtsson and Lindström 2003; Finch and Crimmins 2004), which affects the mortality profile of reproductive-aged women and population growth potential. In relation to development goals, data from a longitudinal study with the Tsimane of Bolivia demonstrate that when individuals seek medical attention only under dire situations and it takes several days to travel to clinics, medical intervention preferentially benefits adults, not children (Gurven et al. 2007).

Current demographic changes among subsistence foragers and horticulturalists living within nation states often go undetected because reliable censuses do not exist, individual data are unavailable, or populations are too small for dynamics to be discernible by national and regional indices. Yet such communities are frequently the recipient of development initiatives designed from regional or national trends. Viewing demographic changes in light of the Pumé economic transition can direct better informed development initiatives, health care policies, and government assistance, which are more likely to achieve their desired goals and have long-term benefits for indigenous populations.

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NOTES

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1. By *subsistence societies*, we mean those in which food and other goods are largely produced by the household rather than purchased, and little or no surplus is generated for trade or cash.
2. Although migration also is a factor in population growth, minimal net out- or in-migration occurs in the five Pumé study villages.
3. The indigenous census data from 2001 are problematic and remain unpublished.
4. One way to compensate for the small sample sizes is to increase the size of the age classes from one year to five years. Some of the bumps and troughs in the age pyramid could be a feature of the inevitable irregularities in age representation in small samples (but see Weiss and Smouse 1976 for small populations experiencing growth). The greater relative representation of young people (0–14) in the river Pumé could indicate higher historic mortality among 15–29 years old, but this is unlikely. Thirty-one percent of Venezuela's population, as shown in Table 1, is under the age of 15 (Population Reference Bureau 2006).
5. This compares to a median age of 24.7 for Venezuela (UN Population Fund 2006).
6. As marriage patterns affect a net loss or gain on a population age structure owing to migration, most marriages occur between individuals from within the five study villages.
7. Premasticated adult food is introduced first, followed by small portions of soft food such as mangos. By the age of two, children are eating small whole fish with bones.
8. In a sample of Pumé mothers between the ages of 15–29 years, within each five-year age group, both the savanna and river Pumé mothers who had greater infant mortality experience have had more births. However, in neither case do women make up for their losses through additional births, corroborating S. H. Preston's (1978) original finding and L. M. Grummer-Strawn and colleagues' (1998) later reassessment that under conditions of high infant mortality parents do not achieve one-to-one replacement through subsequent births. Although mothers who have one or more infant death have more live births, regardless of whether they are savanna or river mothers, at the population level, far fewer river women experience these high levels of mortality.

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Critical Social Learning: A Solution to Rogers's Paradox of Nonadaptive Culture

ABSTRACT Alan Rogers (1988) presented a game theory model of the evolution of social learning, yielding the paradoxical conclusion that social learning does not increase the fitness of a population. We expand on this model, allowing for imperfections in individual and social learning as well as incorporating a "critical social learning" strategy that tries to solve an adaptive problem first by social learning, and then by individual learning if socially acquired behavior proves unsatisfactory. This strategy always proves superior to pure social learning and typically has higher fitness than pure individual learning, providing a solution to Rogers's paradox of nonadaptive culture. Critical social learning is an evolutionarily stable strategy (ESS) unless cultural transmission is highly unfaithful, the environment is highly variable, or social learning is much more costly than individual learning. We compare the model to empirical data on social learning and on spatial variation in primate cultures and list three requirements for adaptive culture. [Keywords: social learning, origin of culture, culture, biology, mathematical modeling]

ONE OF THE MOST debated questions about culture is its relationship to biological fitness. Given that genetic evolution has endowed humans with extensive capacities for culture, we may expect culture to be genetically adaptive—that is, beneficial to survival and reproduction, at least on average (Richerson and Boyd 2005). The impressive ecological success of humans, who have colonized almost every terrestrial habitat with densities unprecedented for animals of similar size, seems to confirm this expectation (McEvedy and Jones 1978). In 1988, however, Alan Rogers published a mathematical analysis of the evolution of social learning, according to which culture is not adaptive in the genetic sense (Rogers 1988).

Rogers studied an evolutionary game with two genetically determined strategies—individual learners and social learners—and analyzed how they contributed to culture (defined as traits influenced by social learning). Assuming a moderately variable environment, he showed that if individual learning is more costly than social learning, then genetic evolution leads to an equilibrium in which individual and social learners coexist. At this equilibrium both strategies have the same fitness of individual learners in the absence of social learners. Thus, in Rogers's model, the ability for social learning is of no advantage to the individual or

the population. On the contrary, the spread of social learning decreases the number of individual learners and thus impairs a population's ability to create culture and react to environmental change (Figure 1a).

The fundamental reason for Rogers's surprising result is that, in his model, only individual learners create information. Social learners have a fitness advantage when they are few, because they can imitate individual learners without paying the cost of individual learning (Figure 1b). When they are many, however, social learners will mostly imitate other social learners and may acquire information that has been outdated by environmental change. Thus, genetic evolution initially favors the spread of social learners in a population of individual learners, but as they increase in frequency their fitness advantage decreases. Ultimately an equilibrium is reached at which social learners have become so common that their initial fitness advantage is wholly lost (Figure 1b). Robert Boyd and Peter J. Richerson (1995) have considered several variations of Rogers's model, showing that his results are likely to apply to any evolutionary game in which social and individual learners play against each other, and the value of information is frequency independent.

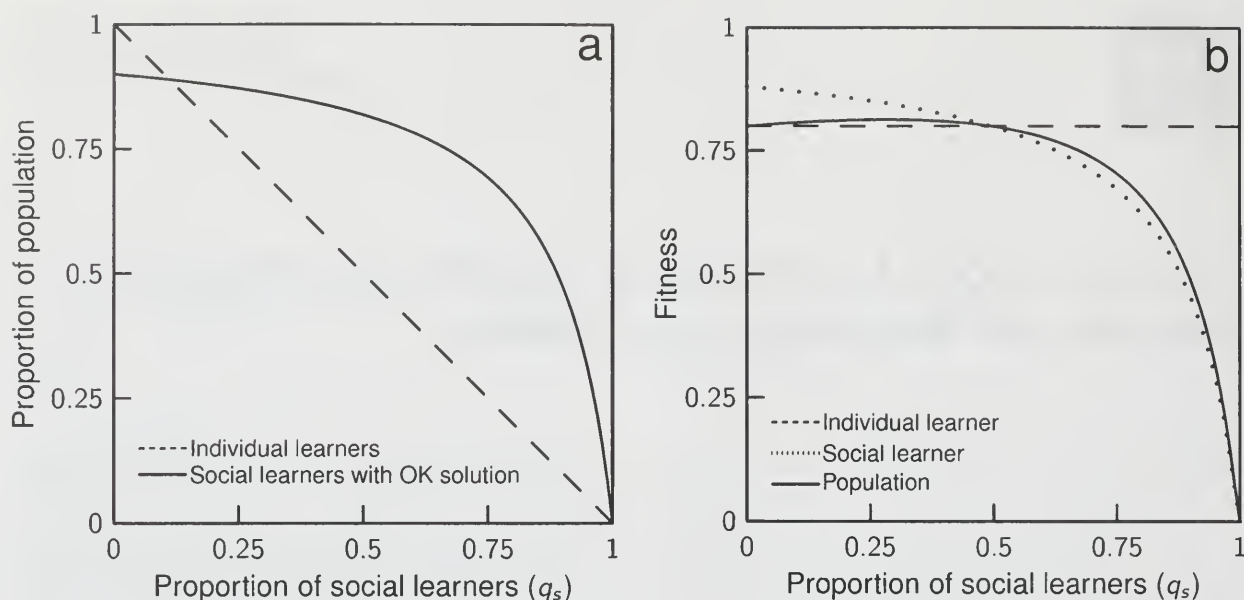


FIGURE 1. Some results from Rogers's (1988) model. a: The proportion of social learners with an OK solution decreases as social learners increase in frequency (and individual learners decrease). b: Fitness of individual learners, social learners, and population fitness as a function of the proportion of social learners in the population. The equilibrium proportions are where lines intersect. Both panels are based on our formulation of Rogers's model (see text), with $c_i = 0.2$, $c_s = 0.02$, $p_i^{OK} = 1$ and $p_s^{OK \rightarrow OK} = 0.9$.

Rogers's result is a theoretical one that follows from his assumptions, but it seems to be at odds with empirical observations. Several attempts have been made to escape this paradox. Bennett Galef (1992, 1995) observed that animals do not use social learning indiscriminately, as in Rogers's model. Boyd and Richerson (1995; see also Richerson and Boyd 2005:111 ff.) mathematically analyze two strategies that combine individual and social learning. In the first model, the strategy is to try social learning when individual learning fails to provide good evidence about which behavior to adopt (see Kameda and Nakanishi 2003 for a computer simulation of a similar scenario). In the second model, the strategy is to use individual learning to improve a behavior obtained by social learning. Boyd and Richerson show that both strategies can be evolutionarily stable and can yield higher fitness than individual learning alone. These models, however, analyze somewhat different problems than Rogers's model. In the first model, for instance, individual learning is cost free, and in neither model is a pure social learning strategy considered (i.e., a strategy in which individual learning plays no role).

In this article we reexamine Rogers's paradox in its original formulation. We think Rogers should be credited not only for pointing out the paradox but also for introducing a modeling framework that allows studying important issues without excessive complexity. Below we first summarize and slightly reformulate Rogers's model. Then we introduce an additional strategy, the "critical social learner," that allows culture to be adaptive under most circumstances. Individuals adopting this strategy first try social learning and then resort to individual learning if the solution obtained

by social learning proves unsatisfactory. We show that this simple extension of the model has important consequences:

1. Critical social learners always do better than pure social learners.
2. Given that learning pays, either critical social learners or individual learners, and sometimes both, are evolutionary equilibria (evolutionarily stable strategies, or ESSs; see Maynard Smith 1982). Pure social learning is never an ESS, and there are no stable polymorphisms (coexistence of different strategies).
3. A population of critical social learners has higher fitness than a population of individual learners: culture can be both adaptive and creative.
4. The same conclusions hold also when individual learning is difficult or the environment is stable.
5. Errors in cultural transmission and environmental variability have the same influence on cultural evolution.

ROGERS'S MODEL

We reformulate Rogers's model with a more generalizable notation and setting. Rogers (1988) considers gene-culture coevolution in the imaginary Snerdwumps. These creatures face a survival problem (e.g., where to find food) whose solution can be looked for either through individual learning (e.g., by trial and error) or social learning (imitating other individuals). Which strategy is used is genetically determined for each individual.

Rogers supposes that the environment sometimes change, so that a solution that works for one generation

TABLE 1. Symbol legend.

Strategies	
i	Individual learning
s	Social learning
si	"Critical social learner": tries s first, then i
is	"Conditional social learner": tries i first then s
w_x	Fitness of strategy x
Costs	
c_s	Cost of social learning
c_i	Cost of individual learning
Proportions	
q^{OK}	Proportion of individuals with an OK solution
q_x	Proportion of population adopting strategy x
Probabilities	
p_i	Probability of acquiring an OK solution by individual learning
$p_s^{\text{OK} \rightarrow \text{OK}}$	Probability of acquiring an OK solution given that one observes an individual who has an OK solution (probability of functional transmission)
p_s^{OK}	Probability of acquiring an OK solution by social learning ($p_s^{\text{OK}} = q^{\text{OK}} p_s^{\text{OK} \rightarrow \text{OK}}$)

may not work for the next. In his model the environment switches between two possible states, but here we drop this assumption both for mathematical simplicity and because it is rare for an environmental change to undo previous changes (Feldman and Laland 1996). Instead, we assume that change results in a new state, in which there is a new unique solution to the survival problem. We call the latter an OK solution, and we calibrate the fitness scale so that the fitness of having an OK solution is 1, whereas the fitness of not having it is 0.

The core of the model is the interplay between various costs, proportions (of certain subsets of the population), and probabilities (of certain events). Table 1 lists all symbols. We denote costs by the symbol c , proportions by q , and probabilities by p . Some parameters are the same for all states of the environment: the cost of individual learning, c_i , and of social learning, c_s , as well as the probability of individual learners obtaining an OK solution, p_i^{OK} . Rogers assumed $p_i^{\text{OK}} = 1$, but we shall see that the conclusions do not depend on this assumption.

The probability that a social learner obtains an OK solution, p_s^{OK} , depends on the variability of the environment and other parameters:

$$p_s^{\text{OK}} = q^{\text{OK}} p^{\text{noChange}} p_s^{\text{noError}} \quad (1)$$

where q^{OK} is the proportion of individuals who have an OK solution in the population (which depends on cultural evolution, see below), p^{noChange} is the probability of the same solution being correct in the next generation (i.e., a measure of the constancy of the environment), and p_s^{noError} is the probability of copying a solution without error (i.e., a measure of the fidelity of social learning). The factors p^{noChange} and p_s^{noError} always appear together in the analysis; to avoid cumbersome formulas we introduce $p_s^{\text{OK} \rightarrow \text{OK}} = p^{\text{noChange}} p_s^{\text{noError}}$, which is the probability that, given that an

OK solution is observed, a social learner will successfully imitate it and thereby have a solution that is still OK in the new generation. We call $p_s^{\text{OK} \rightarrow \text{OK}}$ the *probability of functional transmission*.

Fitness Functions

The fitness of an individual learner is the probability of finding an OK solution minus the cost of individual learning:

$$w_i = p_i^{\text{OK}} - c_i. \quad (2)$$

Similarly, the fitness of a social learner is

$$w_s = p_s^{\text{OK}} - c_s = q^{\text{OK}} p_s^{\text{OK} \rightarrow \text{OK}} - c_s. \quad (3)$$

Cultural Evolution

Let q_t^{OK} denote the expected proportion of the population having the OK solution at generation t . Assuming that the genetically determined proportions of individual and social learners are q_i and q_s , respectively, the expected proportion of an OK solution in the next generation is

$$q_{t+1}^{\text{OK}} = q_i p_i^{\text{OK}} + q_s p_{s,t+1}^{\text{OK}} \quad (4)$$

where $p_{s,t+1}^{\text{OK}}$ is the probability of socially learning an OK solution in generation $t + 1$:

$$p_{s,t+1}^{\text{OK}} = q_t^{\text{OK}} p_s^{\text{OK} \rightarrow \text{OK}}. \quad (5)$$

This cultural dynamics yields an equilibrium value of q^{OK} that can be calculated by the equation

$$q_{t+1}^{\text{OK}} = q_t^{\text{OK}} \quad (6)$$

which has the unique solution

$$q^{\text{OK}} = \frac{p_i^{\text{OK}}(1 - q_s)}{1 - p_s^{\text{OK} \rightarrow \text{OK}} q_s} \quad (7)$$

having used $q_i = 1 - q_s$.

Genetic Evolution

Assuming that cultural evolution is much faster than genetic evolution, we can calculate the fitness of the social learning strategy in equation 3 using the value of q^{OK} at cultural equilibrium, equation 7:

$$w_s = \frac{p_s^{\text{OK} \rightarrow \text{OK}} p_i^{\text{OK}}(1 - q_s)}{1 - p_s^{\text{OK} \rightarrow \text{OK}} q_s}. \quad (8)$$

Thus, the fitness is expressed as a function of the proportion of social learners in the population. Rogers depicted the situation in a graph similar to Figure 1b. When social learners are few, they have a fitness advantage compared to individual learners, but this advantage decreases as social learners become more common. Thus, genetic evolution will increase the number of social learners until an equilibrium is reached where the fitness of the two strategies is equal:

$$w_s = w_i. \quad (9)$$

The equilibrium value of q_s and $q_i = 1 - q_s$ can be computed from equations 2 and 8 (see Figure 1). The key observation is that at equilibrium the fitness of social learners is the same as the fitness of individual learners—which is always the same. Hence the paradoxical conclusion of Rogers's model is that culture, in the sense of culturally acquired solutions to survival problems, does not increase the fitness of Snerdwumps.

EXTENDING THE MODEL

We now introduce another genetically determined strategy, the critical social learner, who starts by socially learning a solution and then critically evaluates whether this seems to be an OK solution; if it is not OK, individual learning is tried. We assume that the evaluation itself is cost free (see the Discussion). We write this strategy as "si" because social learning is tried first, then is sometimes followed by individual learning. A strategy of this kind has been considered, in a different context, by Boyd and Richerson (1996).

Fitness Functions

The expected fitness of a critical social learner is the same as the expected fitness of a social learner plus the expected fitness of an individual learner weighted with the probability that the solution acquired by social learning is not OK:

$$\begin{aligned} w_{si} &= w_s + (1 - p_s^{\text{OK}})w_i \\ &= q^{\text{OK}} p_s^{\text{OK} \rightarrow \text{OK}} - c_s + (1 - q^{\text{OK}} p_s^{\text{OK} \rightarrow \text{OK}})(p_i^{\text{OK}} - c_i). \end{aligned} \quad (10)$$

Cultural Evolution

By definition, the probability that a critical social learner acquires an OK solution is $p_s^{\text{OK}} + (1 - p_s^{\text{OK}})p_i^{\text{OK}}$. Let q_{si} denote the proportion of critical social learners in the population. Then equation 4 for the expected proportion of an OK solution in generation $t + 1$ is augmented by one term:

$$q_{t+1}^{\text{OK}} = q_i p_i^{\text{OK}} + q_s p_{s,t+1}^{\text{OK}} + q_{si} (p_{s,t+1}^{\text{OK}} + (1 - p_{s,t+1}^{\text{OK}})p_i^{\text{OK}}). \quad (11)$$

The equilibrium equation 6 now yields the following expected proportion of an OK solution in the population

$$q^{\text{OK}} = \frac{p_i^{\text{OK}}(1 - q_s)}{1 - p_s^{\text{OK} \rightarrow \text{OK}}(q_s + (1 - p_i^{\text{OK}})q_{si})} \quad (12)$$

where q_i has been eliminated using $q_i = 1 - q_s - q_{si}$.

Genetic Evolution

If individual learning is adaptive (i.e., $w_i > 0$), then critical social learners will always be better off than social learners (except in the uninteresting special case where social learners always obtain an OK solution). Hence the genetic evolutionary dynamics must have $q_s = 0$ at equilibrium, in

which case equation 12 simplifies to

$$q^{\text{OK}} = \frac{p_i^{\text{OK}}}{1 - p_s^{\text{OK} \rightarrow \text{OK}}(1 - p_i^{\text{OK}})q_{si}}. \quad (13)$$

The critical social learner strategy is an ESS if $w_{si} > w_i$ when almost all individuals adopt this strategy. With $q_{si} = 1$ and $q_i = 0$ equation 13 reduces to

$$q^{\text{OK}} = \frac{p_i^{\text{OK}}}{1 - p_s^{\text{OK} \rightarrow \text{OK}}(1 - p_i^{\text{OK}})}. \quad (14)$$

The condition $w_{si} > w_i$ writes

$$q^{\text{OK}} p_s^{\text{OK} \rightarrow \text{OK}} - c_s + (1 - q^{\text{OK}} p_s^{\text{OK} \rightarrow \text{OK}})(p_i^{\text{OK}} - c_i) > p_i^{\text{OK}} - c_i \quad (15)$$

which together with equation 14 gives the ESS condition:

$$c_i > p_i^{\text{OK}} - 1 + \frac{1 - (1 - p_i^{\text{OK}})p_s^{\text{OK} \rightarrow \text{OK}}}{p_i^{\text{OK}} p_s^{\text{OK} \rightarrow \text{OK}}} c_s. \quad (16)$$

According to this condition, critical social learning is favored by lower cost of social learning, c_s , and higher cost of individual learning, c_i (Boyd 1988; Boyd and Richerson 1985; Feldman et al. 1996), as well as less environmental changes and more faithful cultural transmission (both increasing $p_s^{\text{OK} \rightarrow \text{OK}}$, the probability of functional transmission). Increasing the probability of finding an OK solution through individual learning (p_i^{OK}) from 0 to 1 first favors and then slightly disfavors critical social learning. Some of these dependences on parameters are illustrated in Figure 2. Note in particular that critical social learning is an ESS even when the cost of individual learning is 0 (unless p_i^{OK} is close to 1). Overall, the effect of the cost of individual learning is very weak for $p_i^{\text{OK}} < 1$.

When critical social learning is an ESS, average fitness is higher than in a population of individual learners (otherwise the population could be invaded by individual learners, violating the ESS condition). The crucial factor behind this result is that critical social learners are able to maintain a higher proportion of individuals with an OK solution, which translates in a higher probability of successful social learning. That is, although in Rogers's model q^{OK} decreases as social learners increase in frequency (equation 7), the reverse holds for critical social learners, as equation 13 is an increasing function of q_{si} . The right panels of Figure 2 show the proportion of individuals with an OK solution in populations consisting either of individual or critical social learners. When individuals learners always find an OK solution, $p_i^{\text{OK}} = 1$, there is no difference between the two populations. However, when $p_i^{\text{OK}} < 1$, a population of critical social learners maintains a higher proportion of individuals with an OK solution than a population of individual learners. The difference is particularly striking when the environment is stable and transmission is faithful, in which case almost all critical social learners have an OK solution even when the probability of finding one through individual learning is low.

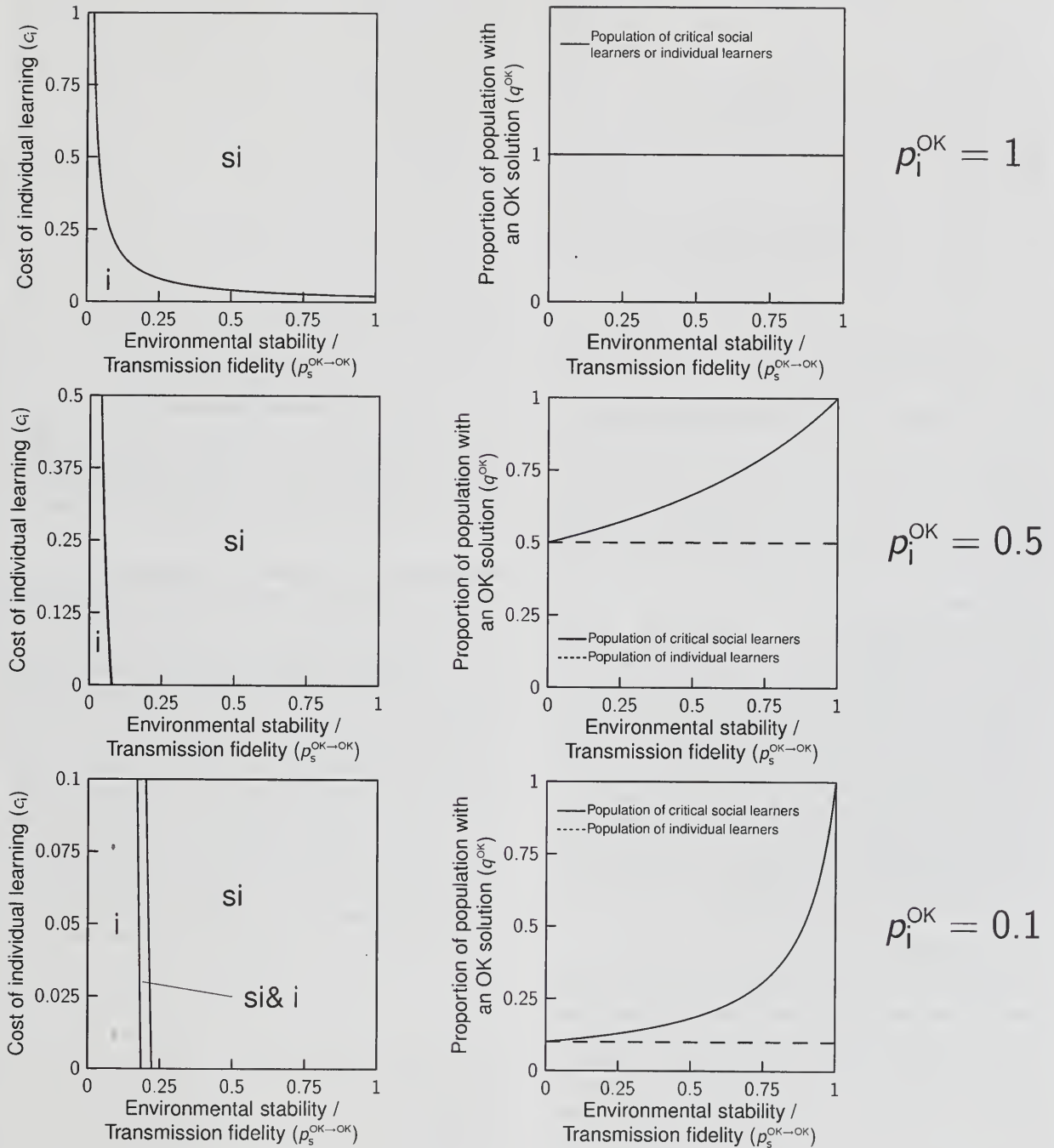


FIGURE 2. Left: Evolutionary stability of strategies in the extended Rogers' model. The vertical scales differ because of the requirement that individual learning be adaptive ($c_i < p_i^{OK}$). The cost of social learning is $c_s = 0.02$. The lower panel shows a region where both i and si are ESSs (cf. the first model in Boyd and Richerson 1996). The condition for i to be an ESS, determined in the same way as equation 16, is $c_i < p_i^{OK} - 1 + c_s / p_s^{OK \rightarrow OK} p_i^{OK}$. This is compatible with equation 16 so that for some parameter values both i and si are ESSs. Unless c_s is large or p_i^{OK} very small, however, this region is extremely small (the two lines coincide in the upper panel and are indistinguishable in the middle one). Right: proportion of individuals with an OK solution in populations of critical social learners or individual learners.

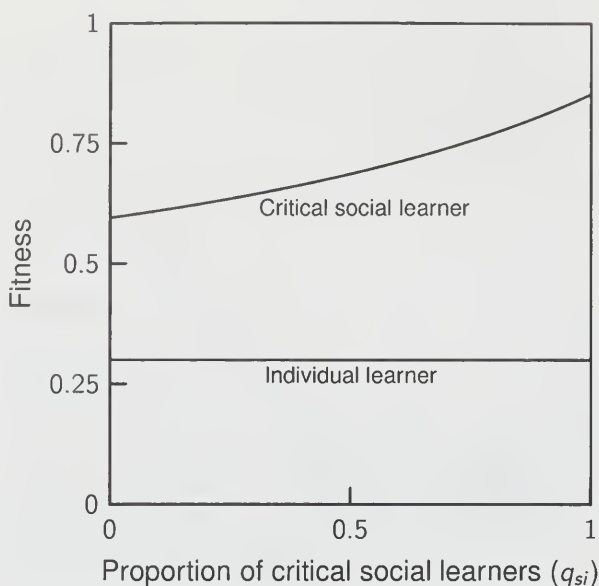


FIGURE 3. The fitness of critical social learners always increases as their frequency increases in a population consisting of critical social learners and individual learners (cf. Figure 1b). In this figure, we have $c_i = 0.2$, $c_s = 0.02$, $p_i^{\text{OK}} = 0.5$, and $p_s^{\text{OK} \rightarrow \text{OK}} = 0.9$, but the result is true for all parameter values (q_i^{OK} always increases with q_{si} equation 1).

DISCUSSION

Critical social learning offers a solution to Rogers's paradox because, under most circumstances, it allows culture to be adaptive and preserves individual creativity. The main reason for this is that the spread of critical social learning does not depress fitness. Figure 3 shows that the fitness of the critical social learner increases as a function of the proportion of critical social learners in the population. This stands in contrast with Rogers's original model, in which the fitness of social learners decreases when the latter become abundant (see Figure 1b). We now discuss whether critical social learning is a plausible strategy and how it modifies our understanding of the evolution of culture.

Is Social Learning Critical?

The critical social learning solution to Rogers's paradox depends on two main assumptions. The first is that critical social learning is possible. We do not think this is controversial. Although many theoretical models consider social and individual learning alternative strategies (Boyd and Richerson 1985; Rogers 1988), actually any species capable of social learning is also capable of individual learning. Likewise, the common assumption that social learners be uncritical toward socially acquired behavior (Boyd and Richerson 1985; Rogers 1988) is probably not true of actual social learning (Galef 1995; Laland 1996, 2004). For instance, any species capable of trial-and-error learning has mechanisms to evaluate the consequences of actions, and it seems unrealistic that these mechanisms do not operate at all on behavior acquired by social learning (Galef 1995).

The second assumption is that critical social learners do not pay a cost when they evaluate socially acquired behavior. We made this assumption partly for mathematical simplicity but also because it is not crucial: considering a cost of critical evaluation does not introduce any new qualitative features in the model, provided this cost is not so large that critical social learning becomes inferior to pure social learning. Our main result is equation 16, the condition for critical social learning being an ESS against individual learning. If a cost of critical evaluation, c_e , is considered, this condition is modified simply by adding c_e to the cost of social learning—that is, by replacing c_s with $c_s + c_e$. Thus, the form of equation 16 is unchanged, meaning that the dependency on p_i^{OK} and $p_s^{\text{OK} \rightarrow \text{OK}}$ is as discussed above: critical social learning is favored when individual learning is difficult and when the environment is stable and cultural transmission is faithful. Of course, the exact form of the boundary between the regions where individual or critical social learning are ESSs (see Figure 2) depends now on c_e as well. When c_e is similar in magnitude to c_s , the boundary is only slightly displaced. To significantly expand the region where individual learning is an ESS, c_e must be roughly as large as c_i . We believe this is an unlikely case, because checking whether a solution is OK should generally be easier than actually coming up with the OK solution.

Adaptive Filtering Makes Culture Adaptive

Critical social learners do well because rather than blindly sticking with unsatisfactory solutions acquired through social learning, they abandon them. This is an example of "adaptive filtering"—that is, a process whereby adaptive traits are more likely to be retained in a population than are maladaptive traits. In previous work (Enquist and Ghirlanda 2007), we have suggested that adaptive filtering is necessary for adaptive culture: simple social learning is not enough. This remark also explains the findings by Boyd and Richerson (1995) and Tatsuya Kameda and Daisuke Nakanishi (2003): both studies considered strategies that made informed decisions about what to do and what potential solutions to use, thus acting as adaptive filters. For instance, in Boyd and Richerson (1995, model 3), individuals rely on culture when an informed decision is not possible or uncertain. According to our results, it should be the informed decision that makes culture adaptive, not the uncritical use of culture when such a decision is not possible. Therefore, the adaptive value of culture should decrease when uncritical reliance on culture increases and when the ability to discriminate between OK and non-OK solutions decreases. The latter is obvious as decreasing the ability to discriminate between behaviors increases the chance of selecting the wrong one. As for the former, individual strategies are described in this model by a parameter d , such that with increasing values of d individuals rely more and more on imitation rather than on their own experience. Boyd and Richerson (1995) prove that there is an optimal level of d , greater than zero. On the one hand, this means that individual learners fare worse than those who rely on both individual and social learning (this is the point emphasized in

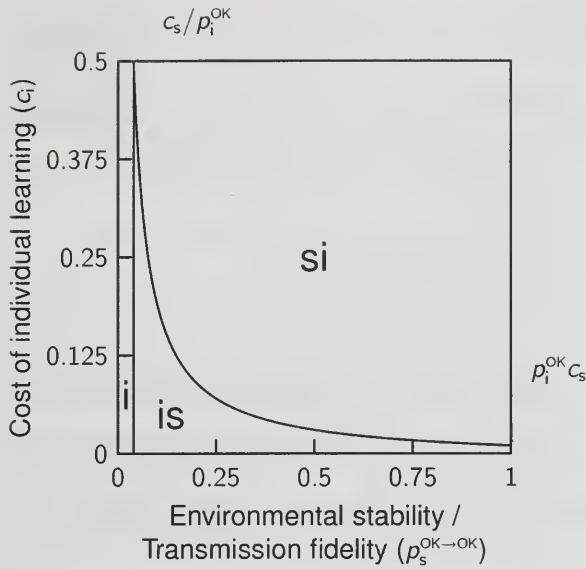


FIGURE 4. Evolutionary stability of strategies as a function of model parameters when the “conditional social learner” strategy is included as a further extension of Rogers’s model (cf. Figure 3). Parameter values: $p_i^{OK} = 0.5$, $c_s = 0.02$.

the article). On the other hand, the same result implies that individuals should not rely too much on social learning, which would deprive them of adaptive filtering capacities.

Social Learning Should Usually Be Tried First

Kevin N. Laland (personal communication, July 1, 2006) suggested to us yet another strategy, which we call “conditional social learning,” that tries individual learning before social learning. Such a strategy is often discussed in the literature, for instance in suggestions that social learning is tried when individual learning proves unproductive or too costly (reviewed in Laland 2004). Conditional social learning should be able to generate adaptive culture because, as critical social learning, it has adaptive filtering abilities (adaptive behavior is preserved in the population because individual learning is always tried). The fitness of this strategy is:

$$w_{is} = w_i + (1 - p_i^{OK})w_s \quad (17)$$

where the subscript *is* indicates that individual learning is tried before social learning. This strategy is clearly superior to an individual learner (given that $w_s > 0$); the question is how it fares against the critical social learner. Repeating the same kind of analysis as above shows that the conditional social learner cannot be invaded by critical social learners if the cost of individual learning is sufficiently small:

$$c_i < \frac{p_s^{OK \rightarrow OK}(1 - p_i^{OK})}{p_s^{OK \rightarrow OK}} c_s. \quad (18)$$

If the opposite holds, a conditional social learner cannot invade a population of critical social learners. Thus, if

the cost of social learning is zero, then the conditional social learner strategy is never an ESS. In fact, the cost of social learning must be roughly of the same magnitude as the cost of individual learning for the conditional strategy to beat the critical strategy, which contradicts the common assumption about social learning being considerably cheaper. Hence, under most circumstances, the critical social learner is the superior strategy. Figure 4 shows which strategy is an ESS depending on parameter values. Note that in cases when the conditional social learner is an ESS, social learning is often of little use because of high environmental variability or inaccurate transmission. Considering a cost of critical evaluation does not modify these results because both the critical and the conditional social learner would pay such a cost.

It has often been suggested that social learning should be tried first when a behavior is either too costly or too complex to be invented by a single individual (Boyd and Richerson 1985, 1996; Henrich and McElreath 2003). Equation 18, however, depends only weakly on p_i^{OK} , which means that it is profitable to try social learning first, under most conditions, irrespective of whether it is easy or difficult to find an OK solution.

Are Inventions Rare?

In our model, individual learning has a cost, c_i , and a probability of success, p_i^{OK} . Most models, on the other hand, assume that individual learning always produces optimal behavior and only consider its cost (Aoki et al. 2005; Boyd and Richerson 1995; Rogers 1988). In such models, the main advantage of social learning is its smaller cost. Our results show that the probability that individual learning is successful, p_i^{OK} , can be an equally important factor in the evolution of social learning (see also Boyd and Richerson 1996). For instance, when p_i^{OK} is small, critical social learning can be an ESS even when the cost of individual learning is small (incl. zero), given that the probability of functional transmission, $p_s^{OK \rightarrow OK}$, is high enough and social learning is not too costly (equations 16 and 18). The reason is that critical social learning pays more and more as an OK solution becomes harder to find (see Figure 2).

It is difficult to know whether the probability of success or the cost of individual learning has been a more important factor in the evolution of social learning, but two recent extensive surveys suggest that invention is indeed difficult for chimpanzees and orangutans. Andrew Whiten and colleagues (2001) chart chimpanzee behavior patterns whose geographical distribution among study sites suggests a cultural origin (see also Whiten et al. 1999). The authors conclude that 12 behaviors have most likely been invented at a single site, later diffusing to other sites; eight behaviors appear to derive from single inventions followed by significant transformation in the course of diffusion; four behaviors are recorded at only one site, and thus seem to have been invented only once; and 11 behaviors appear to have been invented more than once. The latter, the authors note, comprise the simplest behaviors (e.g., using a stick as a club), whereas complex behaviors like cracking

nuts with stone anvils have almost certainly been invented at one site only. Carel P. van Schaik and colleagues (2003) reach similar conclusions regarding orangutan culture, noting also that, for both chimpanzees and orangutans, groups that live closer together have more similar culture.

CONCLUSION: THREE REQUIREMENTS FOR ADAPTIVE CULTURE

Work on the evolution of culture seems to converge on three basic requirements for the origin of adaptive culture. First, social transmission must be faithful enough. This is an obvious requirement and a major focus of research on animal and human imitation (e.g., Laland 2004; Tomasello et al. 1993). Second, for culture to be adaptive, the rise of social learning should not depress individual creativity. This is the lesson of the original model by Rogers (1988). We have seen above that using individual creativity when social learning fails seems to be the best strategy under most conditions. Third, there must be ways to limit the spread of maladaptive culture (adaptive filtering). Here, suggestions vary and are often not mutually exclusive (Mameli in press). Summarizing many years of work, Richerson and Boyd (2005) suggest that, in addition to the mechanisms reviewed above, genetic evolution has equipped humans with psychological mechanisms that indirectly favor the acquisition of adaptive cultural variants, such as the preferential imitation of common behavior or the behavior of successful individuals. We have suggested that individuals can also play a direct role in weeding out maladaptive culture by evaluating their own behavior (see also Enquist and Ghirlanda 2007). The precise mix of factors that has allowed adaptive culture to arise in humans, as well as an understanding of how pervasive maladaptive culture actually is, remain open to investigation.

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NOTES

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Ethnicity and Evolution of the Biodemographic Structure of Arbëreshe and Italian Populations of the Pollino Area, southern Italy (1820–1984)

ABSTRACT In the present study, we show how, through time, an ethnic mosaic and a changing social and economic context translated into intrapopulation differentiation and a change in genetic barriers between populations. Surname analysis was applied to a sample drawn from two centuries of marriage records in ten Arbëreshe and nine Italian villages of southern Italy to evaluate the evolution of internal differentiation and changes in genetic relationships between populations. Marital isonymy and subdivision into subpopulations was higher in the Arbëreshe. Genetic barriers coinciding with ethnic boundaries characterized the 1800s. In the second half of the 1900s, ethnic differentiation disappeared. We hypothesize that socioeconomic changes, such as increased outmigration and regional mobility, were the forces that progressively eliminated the ethnic-related genetic differentiation in the region. This study has important implications for an understanding of the relationship between genetic evolution and the cultural milieu involving enforcement of ethnic differences. [Keywords: biocultural evolution, ethnicity, biodemography, genetic boundaries, Arbëreshe]

THE GENETIC EVOLUTION of human populations is influenced by evolving cultural and socioeconomic contexts and, by the geographic and ecological characteristics of the environment. In this study, we aim to show how, through time, an ethnic mosaic and changing social and economic milieus affected intrapopulation differentiation and genetic barriers between Arbëreshe (Italo-Albanian) and Italian communities living in the same geographic area.¹

The influence of geographic isolation on the genetic evolution of human populations has been widely explored using biodemographic methodologies. Surnames are equivalent to markers associated with the Y-chromosome with extremely high allele-like variability. Therefore, surname analysis is a particularly useful tool in this line of investigation.

Mountain populations of Mediterranean Europe have been investigated using surname analysis: for example, in the Pyrenees (González-Martín and Toja 2002), in central

Spain (Blanco Villegas et al. 2004; Fuster et al. 1996), in the Apennines (Danubio et al. 1995; Pettener 1985, 1990), and in the Italian Alps (Martuzzi-Veronesi et al. 1996; Pettener et al. 1994). The results of these investigations are particularly representative because of the reduced biases of surname analysis in isolated contexts, in which surnames have a low polyphyletic origin and the populations have low immigration rates.

Genetic studies are increasingly recognizing the important effects of socioeconomic, historical, and cultural factors on the genetic evolution of human populations. For example, the effects of religion, historical migration patterns, and unique historical events or crises have been documented (Bittles and Smith 1994; Crawford et al. 1995; Relethford and Crawford 1998; Smith and Bittles 2002), although agreement on which of these elements leaves the most important mark has not been reached (see, e.g., Martin et al. 2000; North et al. 2000). Part of this difficulty is related

to the complex interrelation of these factors (Smith and Bittles 2002) and the possible existence of temporal variations of the characteristics of this interrelation. For example, Lorena Madrigal and colleagues (2001) have observed intergeneration differences in ethnic attitudes, which might have changed the impact of ethnic barriers on the genetic exchanges among ethnic groups in Costa Rica.

Ethnicity has been the subject of several studies in Italy because of the presence of at least 12 linguistic and religious minorities (Salvi 1975). Historical ethnic minorities (often defined by linguistic boundaries) that have been investigated from a biodemographic point of view are the German-speaking Mocheni (Pettener et al. 1994), the Provençal of the Italian Alps (Biondi et al. 2005), and the Arbëreshe (often defined as an Albanian-speaking ethnic minority) of Basilicata (Pettener 1990, 1995) and Calabria (Biondi et al. 1993; Tagarelli et al. 1992; Tagarelli and Brancati 1995; Tagarelli et al. 2007). These studies have shown that marriage exchange patterns in a region are affected by geographic and linguistic barriers and result in higher endogamy, inbreeding, and subdivision into subpopulations.

In a previous study (Tagarelli et al. 2007), it has been shown that geographic location helped shape the kinship patterns between populations of the same ethnic group, the Arbëreshe. It is also shown that this ethnic minority had higher values than their Italian neighbors of Marital Isonymy and subdivision into subpopulations at the beginning of the 1800s and they formed a preferred reproductive cluster. This result contrasts with previous conclusions that ethnicity is neutral in the biological evolution of human populations, particularly the Arbëreshe (Biondi et al. 1996; Vienna and Biondi 2001; Vienna et al. 2001). The difference may be that those studies are representative of a post-WWII period, as they are based on surveys of schoolchildren conducted in the 1980s that collected data on the great-grandparents, grandparents, and parents of the interviewees. In contrast, the study by Giuseppe Tagarelli et al. (2007) is based on birth records from the first few decades of the 19th century.

Luigi L. Cavalli-Sforza and his collaborators have investigated the genetic evolution of Italian populations (see Cavalli-Sforza et al. 2004), documenting the effect and degree of variability of consanguinity, genetic drift, and migration, as well as the importance of economic and political change on endogamy and migration. In the present study, we analyze the fine structure of human populations and their relationships, taking advantage of the strength of isonymy analysis for the description of the same populations sampled at different times and for an extended time period (Colantonio et al. 2003). Its value also resides in the fact that it investigates and analyzes data from most of the Arbëreshe and Italian populations living in the selected geographic area, allowing an extended comparison through time, space, and ethnic background. Because of this regional and diachronic approach, the investigation will contribute to the debate outlined above and especially to the broader



FIGURE 1. Location of the ten Arbëreshe populations and the nine Italian populations investigated in the Pollino mountain chain and the area south and southwest of the chain, southern Italy. Arbëreshe villages are marked by dots, Italian villages are marked by squares.

investigation of the historical evolution of human populations in mixed ethnic contexts.

The populations are scattered around the border between Basilicata and Calabria in southern Italy. They are characterized by different degrees of geographic isolation and ethnicity (see Figure 1). Previous bioanthropological investigations of the Arbëreshe often have considered the ethnic cohesion of this group as a function of cultural elements, particularly the language, *Arberisht*, and the Greek Orthodox religious rite. These elements, as well as a common mythohistory linked to the Albanian hero Skanderbeg, are the most common markers for the definition of this "people," in Eduard Spicer's (1971) conception of the term.² However, these cultural features should not represent the exclusive defining elements of an ethnic group in a biocultural study. We should focus on the broader range of boundary-defining elements (Barth 1956, 1998) that condition marriage and reproduction and that influence the evolution of the genetic structure of a population.³

Thus, although differences in religious rites or language might have represented barriers, the present approach includes other elements that could have had an impact on the evolution of these populations at different times, such as economic changes that transformed peasants into members of an industrial society or endogamy as a strategy for cultural preservation (Resta 1991), for land consolidation and access, or for the establishment of alliances (Davis 1973; Lopreato 1967:15). Ethnicity cannot be assumed to be a fixed boundary-making category that consistently overrides other determinants of social endogamy.

This study of communities in the Pollino mountain area will show that, through time, important determinants of social endogamy (see the works in a special issue of the *International Review of Social History* [IRSH]: Maas and Van Leeuwen 2005; Pélissier et al. 2005; Van de Putte et al. 2005; and Van Leeuwen and Maas 2005)—such as likelihood of meeting suitable marriage candidates, changing geographic horizons, parental and social pressure, and transition from

a peasant society to one based on services—affected the permeability of the boundary derived from ethnic differences in the area.

In this analysis, we move toward a “biocultural synthesis” (Goodman and Leatherman 1998a)—that is, a combination of biological investigations and political economic analyses, necessary because “insights from political-economy perspectives on relations of power, on the importance of historical contingencies, and on local-regional-global interactions are pivotal to understanding human biologies” (Goodman and Leatherman 1998b:15). This position is in line with Barry Bogin’s biocultural perspective, which considers human biology to be “the result of an interaction of genetic, developmental, and environmental factors with cultural behavior” (1993:45–46). The epistemological value of this perspective does not change when geographic isolates are considered, because isolation is often the product of power relations that marginalize certain areas or social realities through the control of resource distribution or the construction of infrastructures. This condition is also responsible for clusters of nonadaptive genetic variation, like migration, genetic drift, founder’s effect, and assortative mating (Bogin 1993).

Four sections follow below. The first briefly presents the history of the Arbëreshe and describes the data used for the analysis and the biodemographic methodologies applied to the data. The second section describes the results of the analysis, and is followed by a third section that relates the results to the historical socioeconomic and demographic changes in the region. Finally, a brief conclusion stresses the merit of integrating bioanthropological and sociocultural approaches for a better understanding of the historical evolution of human populations.

MATERIALS AND METHODS

The Arbëreshe in Historical Perspective

The Arbëreshe are one of the largest linguistic minorities in Italy. They have demonstrated exceptional cultural resilience in preserving a distinct identity.⁴ This minority is the result of massive movements of Albanians around the end of the 15th and beginning of the 16th century, often linked to the invasion of the Balkans by the Ottoman Empire. Settled in the Kingdom of the Two Sicilies in abandoned and unproductive areas (Resta 1991), the Arbëreshe adopted an autarkic economy mainly based on agriculture and sheep breeding. The history of Albanian migrations to Italy is complicated: some came directly from different regions of Albania as soldiers, laborers, or refugees; others arrived after having being refugees in Morea, in southern Greece. However, they began to cohere in Italy, and the group’s history, identity, and culture are the product of migration and interaction with the autochthonous populations (Harrison 1979). Contacts with the surrounding Italian populations took place during fairs or major festivities, and with time there was a convergence of cultural strategies for the exploitation of the local environment, mak-

ing the two groups virtually indistinguishable (see Mirizzi 1993). An economy based on sheep breeding and the cultivation of crops (grains, grapes, and olives) mainly for family consumption or exchange characterized life in the 1800s and part of the 1900s for most of the populations, especially those in the Pollino mountain areas. In this context, the economic importance of land, the contrasts between Italians and Arbëreshe over the territorial boundaries of the various villages (as recorded in historical accounts; see, e.g., Pace 1877), and differences in religion and language were sufficient reasons to enforce a double boundary that impeded marital exchanges between the two groups. Hence, village and ethnic endogamy created a cohesive front against outsiders while enforcing internal alliances.

The in-depth study of family and marital exchanges in the Arbëreshe community of Farneta (Resta 1991) has revealed that extended families were most common in the 1700s, whereas the nuclear family was predominant in the 1800s. Moreover, marriage exchanges lacked a regulatory system other than the rule of endogamy, allowing each marriage to respond to contingent interests while protecting the group from external “cultural contamination.” The 19th century was also the beginning of an increased involvement of the Arbëreshe in important national historical events (Mirizzi 1993), the signs of a changing relationship with this foreign land. The Arbëreshe took part in the liberal revolts in the province of Cosenza against the Bourbons from the 1820s to the 1840s (Placanica 1999), and they played an active part in the Italian and Albanian Risorgimento (see Altimari 1984, 2004).

Emigration to the Americas between the end of the 19th century and the beginning of the 20th century, which compensated for an increased imbalance between populations and resources in this region (Placanica 1999:329), was associated with an expansion of the medium-sized towns, among them Castrovillari in the province of Cosenza. They became centers of public administration serving the surrounding smaller villages. At the same time, there was an increased movement of the population toward the coast, attracted also by the railway (the section along the Ionian coast had been completed in 1876). In 1922, this area entered into what Augusto Placanica calls “the oppressive grayness of the Fascist period” (1999:360), which deprived the local populations of the safety valve of migration, forcing them to rely even more on their subsistence economy. The Fascist nationalism and its politics of imperialistic expansion in the Balkans resulted in an increased “Italianization” of the values, language, and culture of the Arbëreshe, especially of its leadership (Altimari 1984:15), preparing the way to the Arbëreshe’s participation in the Italian post-WWII economic and social revolution.

After WWII and throughout the second half of the 1900s, the southern regions of Italy, including the Arbëreshe settlements, experienced important social changes that revolutionized the relationship of the southern population to their rural surroundings. As Paul Ginsborg puts it, “In less than two decades Italy ceased to be a peasant country and

TABLE 1. Population size, marriages, isonymy, and repeated pairs of surnames in the four investigated ethnic and geographic groups.

Ethnic and Geographic Groups	Period	Population Size	Number of Marriages	Marital Isonymy	Random Isonymy	Repeated Pairs of Surnames	Random Repeated Pairs of Surnames
Italo-Albanians, Pollino Area	1820–34	4,206	411	0.08029	0.07393	0.00681	0.00623
	1870–84	6,080	652	0.07669	0.07030	0.00563	0.00510
	1920–34	5,509	765	0.04575	0.04615	0.00290	0.00227
	1970–84	4,226	399	0.02005	0.02169	0.00067	0.00052
Italians, Pollino Area	1820–34	7,646	880	0.02500	0.02796	0.00113	0.00107
	1870–84	9,399	1,329	0.03085	0.02427	0.00084	0.00071
	1920–34	11,129	1,488	0.04973	0.02553	0.00109	0.00076
	1970–84	9,782	1,286	0.02722	0.01719	0.00055	0.00034
Italo-Albanians, south and southwest of Pollino	1820–34	9,648	1,230	0.03821	0.04564	0.00385	0.00390
	1870–84	14,094	1,760	0.04318	0.03456	0.00230	0.00197
	1920–34	11,843	1,642	0.05725	0.03776	0.00354	0.00308
	1970–84	9,650	1,029	0.01749	0.01315	0.00033	0.00023
Italians, south and southwest of Pollino	1820–34	14,782	1,805	0.01053	0.01188	0.00022	0.00020
	1870–84	18,476	2,452	0.01754	0.01065	0.00020	0.00016
	1920–34	21,313	2,458	0.02400	0.01110	0.00026	0.00018
	1970–84	26,600	4,040	0.00520	0.00419	0.00003	0.00003

Note: Population size data from Istituto Nazionale di Statistica 1977; Izzo 1965; Masci 1990. *Italo-Albanians, Pollino Area* includes San Paolo Albanese, San Costantino Albanese, Castrolibero, Farneta, and Plataci; *Italians, Pollino Area* includes Cersosimo, Terranova di Pollino, Alessandria del Carretto, Cerchiara, and Albidona; *Italo-Albanians, south and southwest of Pollino* includes Civita, Frascineto, Acquafredda, Lungro, and San Basile; *Italians, south and southwest of Pollino* includes Altomonte, Castrovillari, San Donato, and Saracena.

became one of the major industrial nations of the West" (1990:212). This was Italy's "economic miracle," the result of an increase in international trade and Italian participation in the Common Market, which increased exportation toward other European Economic Community countries between 1958 and 1963.

Migration to northern Italy and to other European countries like Switzerland and Germany was a strong attraction for the peasants of the south, because it provided higher income, regular pay, and regular working hours. The peasants were also pressured by strong "push" factors like poor soil quality, underemployment, and, in the late 1950s, restrictions on credit and the liberalization of grain prices (Ginsborg 1990:221). Between 1951 and 1963, the agricultural sector lost 937,898 male workers, and this is a conservative estimate (Lopreato 1967:44). The abandonment of the agricultural sector continued throughout the four decades following the "economic miracle." Whereas 43 percent of the working population in southern Italy and the islands worked in the agricultural and fishing sectors in 1961, the proportion is only about nine percent today (Istituto Nazionale di Statistica 1961, 2001).

Contributing to the persistence of this trend was the introduction of compulsory secondary education in 1962 and the promotion of a series of developmental initiatives, which unfortunately accentuated the patronage system already existing in the south (see Ginsborg 1990:286–287). Education soon became an important way to provide children with a better alternative to agriculture. Because of the lack of infrastructures in various areas of the south, scholarships were made available to children of low-income families to attend boarding schools. Boarding schools were generally believed to provide a better education, so children

were sent to these institutions to attend high school or middle school, depending on the economic possibilities, expectations, and aspirations of the parents.

The migration of adults and young people changed the relationship of the migrant with the original community and connected the village community to industrial and urban centers like never before. Nevertheless, the Arbëreshe protected and valued their diversity and promoted it as a fundamental resource for the survival of their communities (see Fiorini 2006).

The Investigated Populations

The study is based on data collected in 19 populations of the Pollino mountain area and the surrounding region. The location of the villages, their ethnic makeup, and geographic groupings are illustrated in Figure 1. Table 1 presents the population size of the different groupings in four historical periods. Ten populations have an Arbëreshe origin and nine are Italian. All the Arbëreshe populations of the area were sampled, whereas the Italian populations sampled were limited to those communities characterized by environmental elements similar to those of the Arbëreshe (e.g., located in the same valley, along the same major access roadway, etc.). The ethnicity and geographic location were used to identify four ethnogeographic groups. The Italian and Arbëreshe of the Pollino area represent the first two groups. Historically, these populations have been very isolated, in an environment poor in natural resources; this area lacked an effective road system until after WWII and well into the 1960s. The Arbëreshe of this group include the villages of San Paolo Albanese and San Costantino Albanese in the province of Potenza, Castrolibero, Farneta, and Plataci in the province of Cosenza.⁵ The Italians sampled from this

region include the villages of Cersosimo and Terranova di Pollino in the province of Potenza, Alessandria del Carretto, Cerchiara, and Albidona in the province of Cosenza. The Arbëreshe and Italians south and southwest of the Pollino mountain chain represent the second two groups, all in the province of Cosenza. These populations have been historically more open, as this area had better communications and resources.⁶ The Arbëreshe of this region include the villages of Civita, Frascineto, Acquafredda, Lungro, and San Basile. The Italians sampled from this area include the villages of Altomonte, Castrovillari, San Donato di Ninea, and Saracena.

Biodemographic Data

The data consist of 23,626 marriage records of the Civil Marriage Registers for four historical periods: 1820–34, 1870–84, 1920–34, and 1970–84 (see Table 1). The time frame is the one for which civil records were available in all the sampled municipalities. These periods represent the four important moments in the history of southern Italy outlined above, offering comparable snapshots of intra- and interpopulation genetic differentiation and genetic exchanges for different historical contexts. The first represents the period of Bourbon domination. The second represents the postunification period following the Risorgimento, a period dominated by unfulfilled hopes for social equality and economic improvement among the peasant stratum of the population (Villari 1988). The third represents the interwar period and the rise of Fascism. Finally, the fourth period, after WWII, represents the impact of the Italian “economic miracle” and postwar social transformations on southern Italy.

The marriage records were entered in a database for data processing and analysis. Surnames of the brides and grooms were carefully revised (by standardization of the spelling) to avoid underestimation of isonymy and isonymic relationships during the analysis. The use of marriage records to estimate the genetic evolution of these populations has the advantage of linking the analysis to sociocultural change, because sociocultural forces have a strong conditioning effect on marriage choices. The intrapopulation evolution of genetic structure was analyzed by grouping the populations investigated into the four areas illustrated above. In contrast, the interpopulation genetic relationship was estimated based on the entire set of 19 populations.

Biodemographic Methods

Surname analysis has been widely adopted for decades as an effective tool for genetic analyses (Colantonio et al. 2003; Crow and Mange 1965; Lasker 1985) and, despite some biases (Manfredini 2003), has great potential for historical reconstruction of the genetic landscape of a region. In particular, transmission of surnames in the paternal lineage allows us to associate them with genetic markers on the Y-chromosome and to use them to draw reliable inferences about the genetic structure of populations.

In the present study, the within-population structure was estimated on the basis of Observed Marital Isonymy (*Im*) and Random Isonymy (*Ir*). Observed Marital Isonymy is the proportion of isonymic marriages (marriages with the groom and bride bearing the same surname) in the population and is given by the total isonymic marriages in a period divided by the total number of marriages. This coefficient is an estimate of within-group kinship, which is the probability that two random alleles from the same locus in the two mates will be identical because of descent from one or more common ancestors. Random Isonymy is the probability of a marriage of this kind occurring in the population and is given by the formula

$$Ir = \sum (Si1Si2) / [(\sum Si1)(\sum Si2)],$$

for which *Si1* is the number of *i*th surnames in the male lineage and *Si2* is the number of the same surname in the female lineage. The Random Isonymy coefficient (*Ir*) is an unbiased measure of the expected value of within-population kinship in the case of random marriages. An excess of *Im* over *Ir* indicates that marriages between consanguineous partners are encouraged in the considered population.

The observed Repeated Pairs coefficient (*RP*) estimates the level of homozygosity in a population, on the basis of repeated occurrences of couples with identical surnames. The *RP* coefficient was calculated using the formula proposed by Gabriel Lasker and Bernice Kaplan (1985),

$$RP = \sum [Sij(Sij - 1) / (N(N - 1))],$$

in which *Sij* is the number of couples where the groom's surname is *i* and the bride's surname is *j*, and *N* is the sum of *Sij* over all surname pairs.

The expected value (*RPr*)—the value *RP* would assume if all marriages were random—was calculated according to the analytical method of Ranajit Chakraborty (1985, 1986):

$$RPr = \{1/[N(N - 1)] \cdot \sum Si^2 - 1/(N - 1)\} \cdot \{1/[N(N - 1)] \cdot \sum Sj^2 - 1/(N - 1)\},$$

where $\sum Si = \sum_i Sij$ is the number of grooms with the *i*th surname and $\sum Sj = \sum_j Sij$ is the number of brides with the *j*th surname. An excess of *RP* over *RPr* suggests a degree of preferential intrapopulation subdivision, which might reflect the presence of marital exchanges between specific families. Both *RP* and *RPr* are standardized indexes and their values vary between 0 and 1. *RP* is a better estimate of the level of homozygosity than the Observed Marital Isonymy (*Im*), as it is calculated on the matrix of the entire set of surnames and is less affected by random fluctuation of estimates based on small samples.

Temporal changes in the genetic structure were estimated, based on the matrix of the isonymic relationships among the 19 populations and the four different time periods, using the standardized coefficient H_{ij} proposed by Philip W. Hedrick (1971):

$$H_{ij} = \sum_k (P_{ki} P_{kj}) / [1/2 \sum_k (P_{ki}^2 + P_{kj}^2)],$$

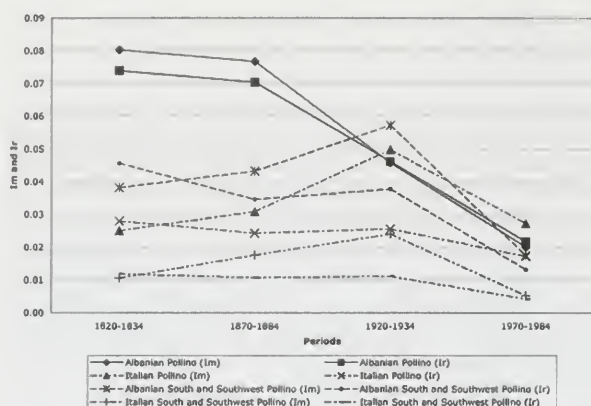


FIGURE 2. Weighted average of Marital (*Im*) and Random Isonymy (*Ir*) for the four population groups and time periods considered.

where P_{ki} is the frequency of the k th surname in population i and P_{kj} is the frequency of the k th surname in population j . The algorithm applied by H_{ij} reduces the effect of the high variability of the surname as a multiallelic marker in one locus, producing better estimates of biodemographic parameters such as genetic kinship and genetic distance between populations. The calculated relationships were then transformed into a two-dimensional graphical representation using nonmetric multidimensional scaling (MDS; see Young 1987). The matrix of the genetic distances D_{ij} among the 19 populations in the four time periods was calculated by subtracting H_{ij} from 1. Mark S. Monmonier's (1973) algorithm was also applied to this matrix to identify the boundaries associated with the five highest rates of change in the given set of measured distances for each time period (software Barrier 2.2 designed by Manni et al. [2004]). The application of this methodology highlights geographically explicit patterns of temporal transformation of the genetic relationships of the populations in the region.

RESULTS

Within-Population Structure

Table 1 and Figures 2 and 3 represent the values of Marital and Random Isonymy and Repeated Pairs Isonymy used to estimate temporal trends in the internal genetic structure of the populations. The highest values of Marital (*Im*) and Random (*Ir*) Isonymy are found among the Arbëreshe, both of the Pollino area and south and southwest of the Pollino, throughout the 1800s; the peak values of Marital and Random Isonymy, 0.08029 and 0.07393 respectively, are in the Pollino area in the first period. The peak *Im* value for the Italians is 0.04973, occurring in the Pollino area in the third period. Within the same ethnic group, Marital Isonymy is generally highest among populations of the most isolated region: the Pollino mountain chain. While the Arbëreshe of the Pollino show a steady decrease in both *Im* and *Ir* from the first to the last period, it also appears that this group anticipated the breakdown of isolation in the period 1870–74;

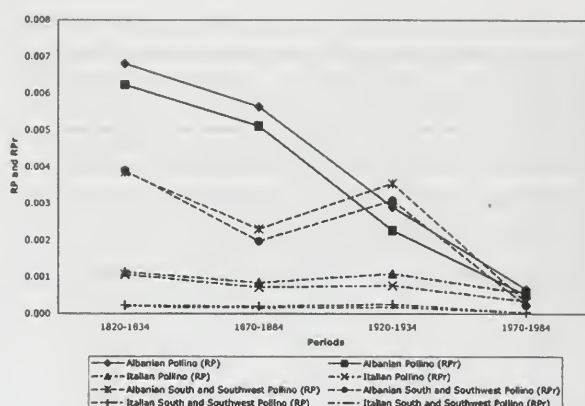


FIGURE 3. Weighted average of Repeated Pair (*RP*) and its Random Component (*RPr*) for the four population groups and time periods considered.

the other three population groups show a peak in Random and Marital Isonymy in the period 1920–34. All four groups show a sudden drop in Marital Isonymy values in the last period. Although the Arbëreshe to the south and southwest of the main mountain chain exhibit the largest fall in these values, the Arbëreshe of the Pollino show the second largest decrease in *Im*. Similar trends characterize the values of *Ir*. Eleven of 16 times, *Im* has a higher value than *Ir*, indicating an overall predisposition toward assortative mating.

The Repeated Pairs coefficient has a pattern similar to that of *Im* and *Ir*. However, the Italian populations have much lower values than the Arbëreshe. The highest values are found in the Arbëreshe of the Pollino area (0.00681 and 0.00623 for Repeated Pairs Isonymy [*RP*] and Random Repeated Pairs Isonymy [*RPr*], respectively, in the period 1820–34), and the lowest are in the Italians south and southwest of the mountain chain (0.00003 for *RP* and *RPr* in the last period). *RP* is a more robust estimate of patterns of marital exchanges within a population because it is based on the entire set of marriages (Lasker and Kaplan 1985); thus, it represents the overall population enclosure better than the estimate based on Marital Isonymy, which is subject to random fluctuations related to the small number of isonymic marriages. In this case, *RP* reveals that populations living in more isolated mountain areas have higher rates of *homozygosity* (rate of identical alleles in the genetic pool) than populations of the same ethnic group living in more geographically open contexts, characterized by greater economic and social exchanges with the surrounding populations.

Historical Evolution of Population Relationships

The differential degree of within-population enclosure among the Arbëreshe in the 1800s and early 1900s can also be seen in Figure 4, which shows the estimate of the temporal evolution of the genetic affinity between and within the 19 populations in the four periods. Isonymic relationships between populations show only slight changes until

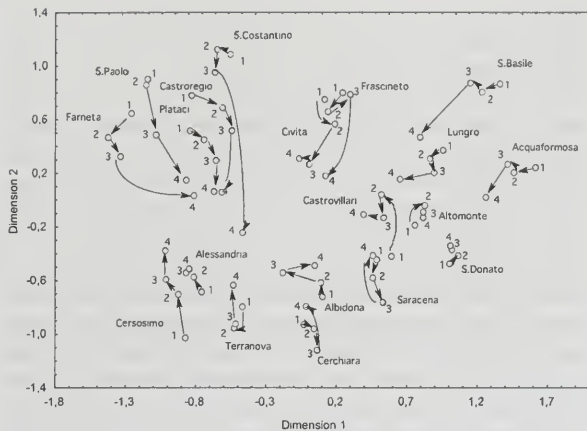


FIGURE 4. Multidimensional scaling bidimensional representation of the isonymic relationships (Hedrick H_{ij}) in the ten Arbëreshe and nine Italian municipalities in the four periods: 1820–34, 1870–84, 1920–34, and 1970–84.

the periods 1920–34 and 1970–84. This representation illustrates the breakdown of isolates, which is also associated with the loss of influence of ethnic differences on the choice of partner; this is graphically marked by the convergence of these populations toward the center of the graph in the fourth period (1970–84). The within-population isonymic relationship for the Italians does not show the marked transition observed among the Arbëreshe in the last century and can be considered typical of less isolated groups since the 1800s.

The two-dimensional representation of the MDS of the matrix of the Hedrick coefficient shows a clear ethnic differentiation between Arbëreshe and Italians along the second dimension, and the first dimension is affected by their geographic location. From left to right are the population group in the Pollino mountain chain, the one south of the chain, and finally the one southwest of the Pollino.

An interaction between the ethnic boundaries and the socioeconomic and geographic landscape in the genetic evolution of the populations of the area is confirmed by the location of the five main genetic barriers for the four periods, estimated using Monmonier's algorithm and represented in Figure 5. In particular, this is indicated by the different locations of the barriers in the four time periods; the locations would remain constant if only geography or ethnicity were the main determinant of between-population marital exchanges. It is possible to identify ethnic corridors of genetic exchanges throughout the 1800s: for example, the corridor represented by San Costantino Albanese, San Paolo Albanese, Farneta, and Castoregio, all villages of Arbëreshe ethnic background (corresponding to villages 5, 4, 2, and 1, respectively, of Figure 5), or ethnic islands like the one represented by Plataci (village 3, see Figure 5). The populations south and southwest of the Pollino were less isolated. These communities tended to be better connected and more open owing to particular economic characteris-

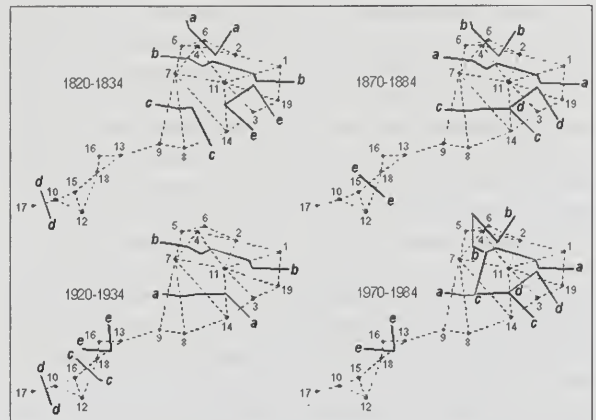


FIGURE 5. Evolution of genetic barriers among the 19 populations in the four periods analyzed: 1. Castoregio, 2. Farneta, 3. Plataci, 4. San Paolo Albanese, 5. San Costantino Albanese, 6. Cersosimo, 7. Terranova di Pollino, 8. Civita, 9. Frascineto, 10. Acquafornosa, 11. Alessandria del Carretto, 12. Altomonte, 13. Castrovillari, 14. Cerchiara di Calabria, 15. Lungro, 16. San Basile, 17. San Donato di Ninea, 18. Saracena, and 19. Albidona.

tics: Lungro had an important salt mining industry, while Castrovillari was (and still is) a major economic and administrative center of the area. The genetic distance in the period 1970–84 led to the definition of the barriers that tended to isolate single populations independently of their ethnic background. Starting in the 1900s, the region underwent profound transformations related to the development of the infrastructure, the beginning of migration to the Americas, and population movements toward the Ionian coast. As a reflection of these structural changes, the barriers for this period lost the ethnic connotation of the previous periods.

DISCUSSION

The case study analyzed in this article is characterized by elements that have important implications for human ecological investigations now and in the future. The temporal and spatial extent of the available data allows observations concerning the evolution of a genetic landscape over an extended period of time and in different geographic contexts. This offers possibilities for diachronic and synchronic analyses of the influence of various environmental, spatial, social, cultural, and economic factors on the populations of the region. In particular, it provides the opportunity to describe how ethnic differences and culture can change from being barriers to reproductive exchanges to being permeable boundaries. It also allows us to question the dominant assumption that segregation by distance can be approached in Geographic-Euclidean terms and not as the product of a historical, sociocultural, and economic configuration of power relations, which marginalize geographic areas, population strata, and ethnic groups.

The ethnic mosaic of this region has attracted the attention of human biologists despite previous studies

indicating the lack of morphological differences between the Arbëreshe and Italians in the region (Boas and Boas 1913). In the 1980s, it provided the opportunity to investigate the biological effects of the processes of cultural integration and demographic change that affected the ethnic minority during the post-WWII decades. Investigations identified significant differences among Arbëreshe villages in the persistence of cultural elements, the rates of Arbëreshe surnames, and the percentage of the population speaking the traditional language. These studies also describe the "breakdown of isolates" in rural areas and among the Arbëreshe of nine provinces of southern Italy (Biondi et al. 1983, 1985; Biondi and Rickards 1991; Rickards and Biondi 1991).⁷

These results were confirmed by other studies in the upper valley of the Sarmiento River in Basilicata (Pettener 1990, 1995) and in the province of Cosenza (Tagarelli et al. 1992), which hypothesized an "active" sociocultural barrier and a "passive" geographic barrier related to the lack of an infrastructure (mountain areas have only been connected to the valley in the past 60 years; see Tagarelli and Brancati 1995).

Recent works on the Arbëreshe found no differences between ethnic minorities and Italians in inbreeding and subdivision into subpopulations. Such works reveal patterns of isonymic relationships dominated by geography rather than by sociocultural differences, as well as the neutrality of ethnic consciousness or differences with regard to the biosocial interactions between human populations (Biondi 1992; Biondi et al. 1993; Biondi et al. 1996; Biondi et al. 2005; Vienna and Biondi 2001; Vienna et al. 2001). Other studies show that sociocultural, economic, and geographic factors have interacted to condition the genetic evolution of this population (Pettener et al. 2004; Tagarelli et al. 2007).

In this study we demonstrate that different ethnicity was the dominant constraint to marital exchanges in the study area during the 1800s. Its influence acted on both internal differentiation and the genetic relationships in the area. This is revealed by the higher values of marital isonymy and random isonymy in the Arbëreshe. This trend is more evident in the results of the *RP* analysis, which is less affected by population size and allows a better comparison of the geographic groupings of the Pollino area and those south and southwest of the Pollino. The higher values of *RP* than of its random component indicate that the village community was the Arbëreshe's preferred marital pool in both geographic groupings, protecting the cultural and social integrity of the group, as hypothesized by Patrizia Resta (1991). Despite these similarities, the Arbëreshe of the Pollino have higher values of *RP* and marital isonymy than the Arbëreshe of the neighboring region. These higher values can be linked to a cultural adaptation to scarce resources, the need to circulate them within the population, and a higher social homogeneity of the mountain communities, in which peasantry was the dominant economic activity. This hypothesis is supported by a parallel behavior among the Italians of the two regions, indicated by higher values of

Im and *RP* in the Italians of the Pollino than in the Italians to the south and southwest.

The 19th century saw an increased involvement of the Arbëreshe in Italian national liberal movements. However, this trend did not significantly affect the population's marital exchanges, which were still conditioned by religious and linguistic barriers and by social pressure from parents and community. In this period and well into the 20th century, the bride and groom had no voice in their marriage choice: the contract was arranged between the families. Moreover, during fieldwork in San Costantino Albanese in 2003, Fiorini, the first author, was reminded several times that, in the past, foreigners were "welcomed" in the village by having stones thrown at them. In general the Italians regarded the Arbëreshe as mean and untrustworthy.

Whenever the reproductive pool of an Arbëreshe population drew from the outside, geographic distance and limited infrastructure were constraints that had to be overcome. The presence of preferred within-ethnic group marital exchanges is revealed by the ethnic corridors identified in our barrier analysis and by the ethnic island of Plataci, an Arbëreshe village surrounded by Italian communities and located at the top of an isolated valley. These corridors define areas of reduced genetic distance, despite the higher time and energy costs to connect the populations of the corridor because of the presence of mountains and valleys and the lack of a developed road system. This context mirrors the ethnic-ecological relationships that stimulated Frederick Barth's theoretical framework (1956, 1998). In general, geographic proximity and isolation, which affect the likelihood of encountering marriage candidates, acted on both the Arbëreshe and the Italians; this is revealed by the first dimension of the MDS, in which the various populations are distributed according to their relative geographic location, and by the short distance separating the populations at times 1, 2, and 3 in Figure 4. During this period (1800s), geographic factors were not as important in determining marital exchanges within the two ethnic groups.

In the 1900s, ethnicity progressively lost its influence on the genetic evolution of the area. This was more evident in the regions with greatest isolation during the previous century, because the links with the northern areas of Basilicata and the Ionian coast were intensified thanks to construction projects and development policies. The increase in marital and repeated pair isonymy in the period 1920–34 is of particular interest—albeit difficult to interpret. The Fascist regime did not enforce discriminatory policies against the Albanians of Italy; rather, this minority fit the regime's goals of imperialistic expansion in the Balkans. Italian involvement with Albania in the mid-1920s was characterized by intensification of the political and economic ties, which included the settling of Italian colonists on Albanian soil. It later evolved into the invasion of Albania in 1939 and its eventual annexation under the Italian crown in 1941. This increased the Arbëreshe integration into the Italian nation-state (see Altimari 1984:15), opening the way to the post-WWII social integration. The

increase in the values of repeated pairs and marital isonymy in the period 1920–34 in both the Italian and Arbëreshe populations is likely related to Benito Mussolini's social policies. In 1927, a tax on single men was introduced, followed two years later by benefits for large families (Barbagli and Kertzer 2003:xxix). This coupled with other legislation limiting population movements reduced the pool of marriageable candidates available to the village.

The improvement in regional infrastructures had a greater impact on the populations after WWII. This was particularly so in the 1960s and 1970s when work-related migration to central Europe and northern Italy became intense and educational programs increased the movement of the younger generations. This expanded the traditional landscape of the village community, reducing parental and community social pressure on the individuals, and changing the local economy from a focus on local agriculture to out-of-village employment in the service and industrial sectors. Roads and local mobility and services improved dramatically starting from the 1980s, facilitating and stimulating population movements and links at the local level; in smaller centers, a general aging of the population also occurred. These events had a stronger impact on the Pollino area, which had been historically more isolated. This evolving context resulted in a decline in the values of marital isonymy and the repeated pairs coefficient, especially in the transition between the third (1920–34) and fourth (1970–84) periods. In the MDS graph representing the isonymic relationships (see Figure 4), this is indicated by a rapid convergence of the entire set of populations toward the center. This convergence is more evident for the Arbëreshe, particularly those in the Pollino area, a trend shown earlier by this group—specifically, in the period 1870–84.

In the 20th century, ethnicity still played an important role in cultural and social aggregation among the Arbëreshe; however, its influence on the genetic exchanges was negligible, with the exception of a population in the southwest. During the period 1970–84, the breakdown of biocultural boundaries, revealed by convergence toward the axis of the second dimension of the MDS, led to definition of the barriers separating single villages in the Pollino mountain chain.

CONCLUSIONS

The diachronic description of the evolution of the human genetic landscape in the Pollino mountain chain and its surrounding areas has important implications for anthropological research. It shows how historical changes affecting societies, cultures, and economic contexts in a region influence the biology of human populations and their relationship with the environment. For example, cultural elements like the ethnic identity of a community cannot be considered immutable variables, as is the altitude of a village. It reveals the importance of the political-economic perspective in investigations of human population genetics.

This historical analysis links the coevolution of intrapopulation and interpopulation genetic parameters to

sociocultural and economic contexts. It describes how a genetic landscape conditioned by barriers enforced by ethnic cultural differences like language and religion transitioned into a genetic landscape determined by geographic isolation and the population policies of an oppressive regime. Finally, it describes the effect on the genetic landscape of the post-WWII economic, social, and demographic revolution, which dramatically transformed southern Italy from an isolated peasant society to a highly mobile society.

The study of historical changes in the arrangement of genetic barriers represents an important innovation in surname analysis. This method provides an analysis of the genetic relations between populations of a region with different ethnicities, allowing a better interpretation of the results of MDS. Mapping genetic barriers also allows for the overlaying of historical, sociocultural, and economic configurations on genetic evolution: this is perhaps the most important contribution of the methodology. The results clearly show how diachronic biodemographic investigations allow one to reconstruct the specific aspects of the genetic structure of a particular geographic area and to contribute to the holistic investigation of the human populations of a region, revealing the interconnections among genetics, environment, and ethnic and socioeconomic landscapes.

This study indicates the need for increasing collaboration between human biologists and sociocultural anthropologists to provide closer integration of socioeconomic, cultural, geographic, and demographic data with genetic data. This would improve analyses of the wide sets of information needed for a refined and effective biocultural synthesis.

The temporal evolution of the population genetics of a region can only be understood through the analysis of a broad range of factors affecting its landscape. When human populations are investigated, the range of factors must include social, cultural, and economic elements likely to affect individual and population decisions and choices with potential genetic implications. The results of the present biodemographic analysis reveal the importance of these elements.

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NOTES

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1. The distinction between Italian and Arbëreshe populations may appear improper, because the Arbëreshe are as Italian as other residents of the study area. An alternative way of distinguishing the two groups would have been to designate the "Italians" as "non-Arbëreshe." However, this distinction implies the existence of homogeneities within the two groups that cannot, and should not, be assumed. During Fiorini's one-year fieldwork, he noticed that a common distinction adopted by the Arbëreshe was Italian versus Albanian. Hence, we decided to adopt a modified version of this categorization, replacing Albanian with Arbëreshe to distinguish them from the Albanians of the migratory wave of the 1990s.

2. Liisa Malkki (1995) discusses the importance of the elaboration of the past as an important element to define the identity of the group. Robin Cohen (1997)—with reference to William Safran (1991), Eduard Spicer (1971), and others—also discusses the importance of collective memory as an aggregative element of diasporic communities.

3. The distinction between *boundary* and *barrier* was recently stressed by Ira Bashkow's (2004) discussion of the neo-Boasian conception of cultural boundaries.

4. Based on a recent report by the Italian Ministry of Internal Affairs (Dipartimento per le libertà civili e l'immigrazione 2002), 70,342 individuals in 46 municipalities were still using the traditional language of the Arbëreshe.

5. Farneta is currently part of the Municipality of Castrolibero. It is located 29 kilometers from Castrolibero. In the past, Farneta was part of the Municipality of Oriolo. Incorporation into the Municipality of Castrolibero was an attempt to combine ethnic similarity with administrative unity. However, the two villages never found cohesion, and Farneta often felt its needs were not addressed (Fiorini, field notes, May 16, 2004).

6. The Via Poplia, a road built by the consul Numa Poplius, facilitated communications in this area. Today this road is the Strada Statale 19, the connecting line of a network of secondary roads built in the 1920s and 1930s to join the villages of the area. Since the 1960s, the Salerno-Reggio Calabria highway (A3) serves the regions south of the Pollino mountain chain.

7. L. L. Cavalli-Sforza, A. Moroni, and G. Zei (2004:240, 288) discuss this phenomenon in the Italian context, which appears to be linked to the same socioeconomic transformations that triggered the breakdown of isolation in other countries (i.e., increased individual mobility and migration to industrial areas) but was delayed by half a century.

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BOOK REVIEWS

Tattooed Mountain Women and Spoon Boxes of Daghestan: Magic Medicine Symbols in Silk, Stone, Wood and Flesh. Robert Chenciner, Magomedkhan Magomedkhanov, and Gabib Ismailov. Tattoo drawings by Alex Binnie. London: Bennett and Bloom–Desert Hearts, 2006. 95 pp.

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Robert Chenciner, Magomedkhan Magomedkhanov, and Gabib Ismailov's new inventory of Daghestani semiotic and material culture is a welcome addition to a very slim selection of anthropological works on the Caucasus in general and Daghestan in particular. In the wake of his earlier survey of Daghestani history and society, Chenciner has made a name for himself as a rare expert on the region. Daghestan is notable for the exceptional ethnolinguistic diversity it displays across its mountainous terrain and for its relative isolation from global markets and information flows. From the view of the anthropological corpus, it remains one of the least-studied areas in Southwest Asia, even in light of the already sparse body of work on the former Union of Soviet Socialist Republics.

Although from an anthropological point of view the authors' analyses can tend toward the simplistic ("children love spoon boxes which exert a primal attraction" [p. 89]), the exotic ("more than in Britain, traditional life has survived in Daghestan, far away in the Great Caucasian mountains, near the lands of Jason and the Golden Fleece, the Khazars and the Amazons" [p. 7]), or the speculative ("it was astonishing that a simple mountain woman expressed her understanding of the surrounding reality by asserting her cosmic connection" [p. 38]), when it comes to contextual and substantive detail and ethnographic texture, the descriptions are quite rich. The tattoos the authors describe are used most extensively as healing talismans, indices of initiation, and protective marks: ethnically diacritic bodily adornments with a shamanic purpose. Such shamanic practice is not uncommon in the Muslim world, and further discussion early in the text of their contextual relationship to Islam would be of great interest.

Tattooed Mountain Women represents a collaboration between Chenciner and two authors of Daghestani origin. The book's focus is a symbolic complex manifest in tattoos, spoon boxes, and other tokens of Daghestani material culture, including domestic architecture. Of note is the observation of the tattoos' roles in "female empowerment" (p. 14). The tattoos displayed range from phallic or vaginal forms to trees of life, from "whirling microcosms" and astral symbols to third eyes, from horses to Judaic symbols, from emblems of group membership to stars of David. In them a syncretic culture of the body emerges, a cosmological lexicon of great time depth. Indeed, of particular interest is the tattoos' significance in a gendered world where they appear a form of silent yet insistent defiance, dissidence, or at least choice. They are a forum for autonomous expression among women; they seem to challenge rather than fix the gendered social order.

The second part of the book is dedicated to the spoon box, which Daghestanis view as "an essential item of domestic ritual furniture" (p. 45) and "a link in a system of magic medicine to protect the family and their guests" (p. 46). It seems to be a form unique to this region, and it is rooted in the realm of men much more than are the tattoos. Note that there is an astonishing connection between this complex and similar ones in the Pamir and Hindu Kush, some 1,500 miles to the east. Karl Jettmar tied the connection to a wider mountain religion with Zoroastrian influences. Further work on the topic might thus be well-situated in the context of the scholarly tradition focusing on the local pre-Islamic customs of the mountain areas of Muslim Eurasia.

What stands out in all this is the vast and extensive visual material, the collective impression of which comes together to form a fascinating picture of a cohesive semiotic system of belief intimately intertwined with Islam and historically linked to distant regions of Eurasia. These tattoos and carvings amount to nothing less than a symbolic language inscribed on the body and home.

The practices illuminated here seem to be largely the realm of older people, and the story is told in the past tense. One is left intrigued by the question of what has become of this process of symbolic production in a world

of increasingly globalized hinterlands and fused traditions. The story must be continuing; its next chapter could be fascinating indeed. In a Daghestan which is surely undergoing massive social change, in what form have such practices survived, if at all, and with what modifications? What is their meaning in the context of changing relations of power? And what new symbolic fusions and syncretisms have emerged from shifting circulations of cultural information and a new politics of Islam? The study of such complexes may provide a fascinating glimpse into the process by which meanings transform under new and dynamically changing historical conditions.

Peoples of the Plateau: The Indian Photographs of Lee Moorhouse, 1898–1915. Steven L. Grafe. Foreword by Paula Richardson Fleming. Norman: University of Oklahoma Press, 2006. 221 pp.

S. ELIZABETH BIRD

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This attractive book presents over 100 images from the more than 9,000 glass-plate negatives made (or collected) by photographer Lee Moorhouse from 1898 to 1915, during which time he documented life around Pendleton, Oregon, where he lived. Among those images were about 3,000 depicting Native Americans of the Columbia River Plateau, including most prominently the Umatilla, Walla Walla, and Cayuse.

Steven L. Grafe, Curator of Native American Collections at the National Cowboy and Western Heritage Museum, has written extensively about Moorhouse elsewhere, and this is not intended to replicate those more scholarly treatments. Grafe provides brief historical sketches of the area, the Native population, and Moorhouse's career as a businessman, the Mayor of Pendleton, and then Indian Agent for the Umatilla Reservation from 1889 to 1891, before he took up photography for both hobby and profit. Grafe's characterization of Moorhouse as an "amateur" seems a little odd; while he did not work from a commercial studio, he used his photos in many commercial ways, such as souvenir booklets, postcards, and photos used for advertising Pendleton blankets.

Moorhouse had a long-term fascination with American Indians and became an enthusiastic collector of American Indian "curios," including clothing, baskets, and other artifacts. Many of these items repeatedly served as props for his more formal portraits, and Grafe provides fascinating detail about these items.

As Grafe points out, this period was a time of change for the region's American Indians, seeing the transition from several distinct equestrian cultures to life on a single reservation and the arrival of boarding schools. Moorhouse embraced the sentimental theme of the "vanishing Indian"; his photos were frequently packaged with florid poetry typical of the times. Nevertheless, Grafe makes an excellent case for Moorhouse's importance as a documentarian of American Indian life. Many of his formal photos, taken outside

his home against a portable backdrop, look stiff and conventional, but he also took images in the field, mostly on the Umatilla Reservation. These offer a more natural look, although many are still clearly posed, in part because Moorhouse preferred to use traditional large-format equipment rather than the more portable cameras favored by many other photographers at the time. Moorhouse apparently believed the large camera was more acceptable to American Indians because it created a sense of occasion, which necessarily sacrifices spontaneity.

Moorhouse's work does offer a rich historical record. For instance, the photos from the Umatilla Indian school document the "civilizing" process such schools espoused. These include several posed photos of children and teachers, such as images of a boys' band and girls engaged in "healthful exercise." There are also more candid shots of girls in domestic science classes and boys learning "practical agriculture," the images inscribing the gender roles being inculcated in the pupils. Grafe provides detailed captions, offering information gleaned from his copious research, such as quotes from the 1890 "Rules for Indian Schools" (plate 47), which are very helpful in providing context for each image.

Indeed, Grafe's meticulous research is apparent throughout, providing rich contextual detail about costumes and artifacts such as the elaborate face mask worn by the horse ridden by David Young Chief of the Cayuse tribe (plate 29). Grafe describes how such accessories were products of the wealth deriving from American Indians' adoption of equestrian culture in the 18th century, the mask being "a masculine accessory that appeared most frequently among peoples linked by trade and marriage to the Cayuse" (p. 100). These details go beyond the more superficial "coffee table" books that this volume resembles in style.

The book is not intended as a work of visual anthropology; Grafe does not really analyze the photos but, rather, focuses on their historical details. Grafe makes interesting points about Moorhouse's relationship with his subjects, arguing that he had a much more intimate relationship with the American Indians than did more famous contemporaries like Edward Curtis. Moorhouse names those he photographs: not only the famous, such as Chief Joseph of the Nez Perce, but also local individuals, such as Parson Motanic, a Cayuse who, "after a storied conversion, became an ardent Presbyterian" (p. 80).

Grafe mentions that the Moorhouse photos—now mostly held at the University of Oregon, the National Anthropological Archives, and the Umatilla County Historical Society in Pendleton—are being rediscovered not only by historians but also by descendants: because many of the subjects are named, descendants can use the photographs to trace ancestry. Furthermore, staff in Portland and Pendleton are working with Native organizations to create a web-based project on the photos, which is a welcome initiative.

This is an interesting volume, and one that represents a true labor of love. It does fall slightly uncomfortably between the genres of coffee table books and academic volumes, but the excellent production values and reasonable

cost make it a resource many visual anthropologists should consider adding to their libraries.

Alanis Obomsawin: The Vision of a Native Filmmaker. Randolph Lewis. University of Nebraska Press, 2006. 262 pp.

NANCY MARIE MITHLO

Smith College

In this ambitious text, American Studies author Randolph Lewis outlines the life and prolific career of the well-known National Film Board of Canada Abenaki filmmaker Alanis Obomsawin. The text is billed by the publisher, University of Nebraska Press, as "the first devoted to *any* Native filmmaker," thus escalating the celebratory and often overreaching goals of the book. Lewis's stated aims are to (1) "show that Native film is more than *Smoke Signals*, that it possesses an unacknowledged history going back to the 1960s, with Alanis Obomsawin at its center" (p. xvi); (2) "help educators bring Obomsawin's decolonizing perspective into the classroom" (p. xxvi); and (3) articulate how "indigenous documentarians [can] teach us about carving out a democratic space for difference, for dissent in the postmodern landscape" (p. xxii). Obomsawin is seen as a type of guide, or in Lewis's terms, a "portal" (p. xxiii) for recognizing the neglected artistry of all indigenous peoples.

Several key premises appear to distract from these goals. To address the first aim stated above, in positioning feature films such as *Smoke Signals* (1998) as distinct from and in opposition to documentary film, Lewis sets up a false dichotomy in which native peoples can either cater to a white audience in fiction-length cinema or "fight the good fight" by demonstrating the atrocities of the state via documentary. The premise that documentary is the central Native American-First Nations mode of film expression, as Lewis asserts in chapter 5, is false. Native filmmakers have historically engaged in a variety of genres from narrative fiction to animation, mystery, science fiction, romance, and historic analysis. To assert that the documentary tradition predominates not only distorts the historic and contemporary record but also diminishes the expansive creativity of Native film producers. The connotation is that Native Americans are consigned to an earnest critique of the colonial process through didactic methods and do not engage actively in more proactive liberatory projects of their own imagination. One only needs to review the featured films of the latest Native American festivals to get an understanding of the complexity of the field (Native Voice Film Festival, Rapid City, South Dakota; American Indian Film Festival, San Francisco; Comanche Nation Film Festival, Oklahoma; Sundance Film Festival, Park City, Utah; The National Museum of the American Indian Film and Video Festival, New York).

Lewis's second aim—to help educators bring Obomsawin's decolonizing perspective into the classroom—is partially served in the text as Lewis provides a useful overview of Obomsawin's legacy, both in narrative descriptions and

in the filmography of film titles in the appendix. Lewis's own analysis, however, is speculative and overgeneralized. He appears to be influenced primarily by Bill Nichols (in an interesting discussion of indexicality) as well as Richard White (in a discussion of the middle ground and Obomsawin as a cultural broker), but I do not find the text to be substantially informed by long-term, sustained work with either Native film or Obomsawin herself. In fact, Lewis's notes indicate that "Obomsawin has expressed no interest in an autobiographical project" (p. 228). Although Lewis shares with the reader in the introduction that the real compensation of the book is "getting to know Alanis," the reader has no indication of the extent, circumstances, or depth of his relationship with her and, thus, his methodology. Citations reveal only one personal contact: "Interview with author, Montreal, August 2002." But was this an hour's interview? A day? A month? To this reader, such distinctions matter.

In reference to being a generalist in the emerging field of indigenous representations, Lewis to his credit attempts several interventions, citing new terms he introduces such as a "cinema of sovereignty" and "representational sovereignty." Yet even these contributions suggest an inflated sense of the newly discovered, when in reality these developments (esp. if viewed in the category of all indigenous artistic works as Lewis suggests we should in his introduction) have a long genealogy of research, naming, and analysis, both in their communities of origin and in mainstream disciplines such as visual anthropology. Lewis's analysis would be better served by addressing a more focused thesis (historical overview of Obomsawin, a gender analysis, documentary, or sovereignty) rather than the all-encompassing gaze attempted in this text. The exploratory approach to the literature might be better received by this reader if the author appeared less authoritative about naming, for example, when he writes, "I have high hopes for what I call a *cinema of sovereignty*, a forum where cross-cultural communication can occur without one of the parties being ignored, silenced, distorted, *Othered*" (p. xxii). This positioning is especially problematic when elsewhere in the text the author champions the "native voice."

Lewis's third goal of articulating what "indigenous documentarians [can] teach us about carving out a democratic space for difference, for dissent in the postmodern landscape" (p. xxii) clearly indicates that the audience for the text is centrally novice, general lay readers who wish an introduction to alternative forms of documentary filmmaking. Clearly, the "us" in this quote is not the indigenous film community itself. This perspective raises the question of whether Lewis views Native communities as solely the producers rather than critics or intellectual partners in the analysis of the field. Lewis would not be alone in this perspective as even the Sundance Film Festival, a constant supporter of Native film productions, has yet to substantially engage the nurturing of an intellectual analysis of the field in the same way that it supports the production of the work itself.

The critiques I have identified importantly do not engage the content of the text: the stunning work of a truly gifted filmmaker, Alanis Obomsawin. As a professor of visual anthropology, I routinely use her most classic work, *Kanehsatake: 270 Years of Resistance* (1993), in my classroom. Students are consistently stunned and riveted by the level of racial hatred visually captured in what is commonly known as the "Oka crisis" of 1991. Lewis's description providing the context of this film in particular is where his writing and analysis are fully engaged. Once he loses himself and centers directly on chronicling the events that Obomsawin devoted her life and profession to—the resilience of Native communities—the text sings. Although Lewis's theoretical analysis is problematic,

his descriptive narratives are direct, informative, and useful for educators wishing to impart the historic backdrop of Obomsawin's films. As evidenced in this text, the critical theorizing required for a sustained analysis of indigenous filmmaking may not yet be fully developed, but the parameters are slowly and surely emerging.

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1993 *Kanehsatake: 270 Years of Resistance*. 119 min. Québec: National Film Board of Canada.

FILM REVIEWS

Muxes: Authentic, Intrepid Seekers of Danger. Alejandra Islas, dir. 105 min. DVD. Rochester, NY: Ethnoscope Film and Video, Spanish version 2005, English version 2006.

MATTHEW GUTMANN

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Flipping through the March 2007 issue of *Marie Claire* lying around my house, I came across an article entitled "Meet Vidal Guerra and His Mother, Antonia: She's Turning Him into a Girl." The opening line read: "In Juchitán, Mexico, daughters are more valuable than sons. So mothers are encouraging their boys to become girls" (2007:120). The area of southern Mexico known as the Isthmus of Tehuantepec has long been famous in the anthropological literature for the openness with which certain men known as *muxe'* cross-dress as women, have sex with other like-minded men, and seduce young men, sometimes for pay (see Chiñas 1991; Miano 2002). The fashion magazine was thrilled that a "traditional Indian society" would host and even promote such outré behavior.

The documentary *Muxes: Authentic Seekers of Danger* addresses the same social phenomenon from a different, although equally as gushing, perspective; in many ways the film provides a series of coming-out stories that happen to be set in tropical climes. The film is divided into sections, accessibly titled, on subjects like being born or made *muxe'*, AIDS and the fight against the contagion, and rejection or acceptance from family and society for being *muxe'*. The term itself is employed by most of those in the film in a positive way and summons an indigenous (Zapotec) authenticity intentionally echoed in the subtitle. The invocation of genuineness extends to the key city of the region, Juchitán; as a few of the men in the film teasingly mention, not for nothing is Juchitán known as the "Gringo Queer Paradise." Romanticization of the erotic indigenes is dismissed by some in the film as exaggeration and simultaneously for others offers a source of no little *muxe'* pride.

The film consists largely of men who self-identify as gay queer homosexual or *muxe'* talking to the camera individ-

ually or in groups. We follow these same individuals as they go about their daily lives, preparing food, getting fitted for a ball gown, dancing at an all-night party, and visiting the altar of dead relatives. At times this seems reasonable, as with crowd shots of shopping for flowers in the market; in other scenes it is cloying, for instance, when one man mourns his dead mother alone with her photograph, as if oblivious to the camera tightly focused on the tears streaming down his face.

The idea of a preference for girls raised by *Marie Claire* provides the opening lines of the film as well, although this sentiment is quickly jarred by the entrance onto a Juchitán sidewalk of prancing men in tutus and veils. They are part of a self-styled group of "intrepid danger seekers," men of all ages and clothing preferences, wily and guileless, a few of whom gamely declare that they want to be women. Unanimously they assert they came into the world this way. Although particularities of life in Juchitán are integrated throughout the documentary—from kinship structures to iguana stews to swinging on hammocks to the ubiquitous carton of Corona—the only feature of life there that is presented as unusual is the public display of gays-homosexuals-*muxe'* in the area. Indeed, as in all studies of *muxe'*, a passage toward the end has the men one after another list their openly *muxe'* relatives.

Oblique reference is made to the more controversial issue of sex between *muxe'* and the young men of the region. At one point it is asserted that as young Indian women "must maintain their virginity" until marriage, young Indian men prior to this seek other (male) outlets for sexual experimentation and release. The possibility of a coercive nature in some relationships between older men and boys would, it seems, spoil the celebratory tone of the film and is largely avoided. The only controversy directly addressed is the complaint of a local woman who feebly protests that the *muxe'* have "displaced real women" who simply cannot compete with these cross-dressing divas and their perfectly applied mascara and brilliantly embroidered skirts.

For audiences in the United States—and if Google is any guide, the film is being shown at LGTB events on colleges

throughout the country—it will have a late-modern feel. The men interviewed and the men and women in their lives leaven their comments about authentic Indianness with insights about safe sex, plastic surgery, looking like Barbie, “poor people’s Versace,” and hormone treatments. The touristic spirit of these men appears captured toward the end of the film by an emcee at the annual dress ball: “The Isthmus has always welcomed the gays of the world.” Although allusion to “patriarchal gender roles” is tossed off early on, the contradictions, collusions, and inequalities central to gender relations in the Isthmus—including the homophobia suffered by *muxe’* in this mythical queer paradise—is glossed over in favor of a travel montage of “inveterate fun lovers” of danger and transgression.

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Indo Pino. Martine Journet and Gerard Nougatol, prods. 85 min. DVD. Goettingen: IWF Wissen und Medien gGmbH, 2003.

Gods and Satans. LeMiroir Production, Gabriel Chabanier, Martine Journet, and Gérard Nougatol, prods. 87 min. Color. DVD+R. Bondy, France: IRD Audiovisuel, 2005.

JANE MONNIG ATKINSON

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Martine Journet and Gérard Nougatol have produced two illuminating documentaries on ritual healing and religion among the Wana people of Sulawesi Tengah, Indonesia. Both feature a quick-witted, playful, and engaging shaman named Indo Pino.

The first film, *Indo Pino*, documents a challenging episode when Indo Pino falls gravely ill. Instead of healing others, she requires shamanic treatment herself. And instead of the boisterous nighttime drumming ceremony, the treatment of choice is the *molawo*, chanted a cappella in daylight by a lone practitioner. In contrast to the style of treatment in which shamans call on spirit familiars (*walia*) with whom they have personally cultivated relationships by keeping vigil in dangerous places, the *molawo* is an esoteric chant handed down across generations and learned by listening to experienced performers. Although the film does not make the distinction, the version performed here is also known as the *molawo maneo* (“crooked *molawo*”) be-

cause it involves traveling to the sky and negotiating with Pue Lamo, a fierce deity associated with thunder and lightning, who casts hooks and other metal objects into human victims. The filmmakers effectively convey the logic of such attacks with footage of the *molawo* performer fishing from a canoe as his patient, Indo Pino, now recovered, graphically describes how the god snags humans with fish hooks that cause intense pain and ultimate death unless they are removed.

Varied measures taken to treat Indo Pino included moving away from the neighborhood where others had sickened and died—a frequent and probably sensible step taken in a region beset with endemic malaria and other diseases. Accounts of these efforts demonstrate how difficult it is to say with certainty which treatments were successful and, conversely, how easy it is to fashion culturally plausible explanations that give credit to particular cures and healers.

Martine Journet figures in the film as she prevails on Indo Pino to take allopathic medicine to get well. In a website account, the filmmakers explain their concern about offering antibiotics to people without regular access to medical care. Not only did they worry about impairing acquired immunity in a vulnerable population, they also worried as well that the medicine might undermine people’s faith in their shamans. As it turns out, the filmmakers had little to fear on the second count. When asked if Wana practices and allopathic medicines are incompatible, Indo Pino and her companions downplay the dichotomy. Both Wana and allopathic treatments, they aver, are valid means for healing. Not only are they not incompatible, they can also be mutually reinforcing. And, furthermore, all these cures come ultimately from God. In the Indonesian idiom, pagan Wana “have not yet entered” a world religion and, thus, are “still ignorant.” Wana turn this temporal distinction on its head by claiming precedence and power for their own traditions because their origins predate those of Christianity and Islam. These responses stem from well-established Wana habits of justifying their cultural practices and rationalizing their inferior status relative to more affluent and powerful neighboring populations.

The second film, *Gods and Satans*, probes deeper into Wana thinking about religion. Indo Pino’s nephew Doni has converted to evangelical Christianity and comes back to convert his community. The ensuing tensions are the focus of this film. The filmmakers do a highly effective job of representing the positions and feelings of individuals on each side of the conflict.

A zealous Indonesian missionary passionately lays out her strategy for converting the highlands. She and the evangelical onslaught appear formidable, an impression reinforced by shots of groggy Wana children being roused to sing hymns at 5:00 a.m. and subjected to stern readings about the wages of sin. And, yet, the film also brings out the vulnerability of converts, who believe that illness is the result of sin and choose to rely exclusively on prayer to heal.

The objections mounted by Indo Pino and her friends are rooted in generations of dialogue and debate about religion. In one scene, resistant Wana borrow a page from their Muslim neighbors to criticize the evangelicals. Pointing to a pictorial representation of Jesus in an evangelical publication, the skeptics assert that Wana and Muslims are in agreement that the true God cannot be seen or directly known.

Bahasa Indonesia is the principal language used by interviewees in both films. Indo Pino (the only Wana woman who speaks in the films) switches frequently to the local language, Bahasa Taa. As she does so, she moves from didactic explanation of Wana practice to animated narrative, including a charming sequence in which she demonstrates how she monitors the health of her friend Martine in France during shamanic performances.

The films present rich insights into shamanic mentoring. With Indo Pino's help, her adult son learns to overcome his skepticism and to make contact with spirits and, most importantly, how to interpret these encounters. He learns to identify and reject those spirits who can turn humans into liver-eating monsters. And he takes a filmmaker along

for a nighttime visit to his own child's grave in search of spiritual power.

Tightly focused on related themes of religion, ritual, and healing, both films beautifully document, without commentary, many aspects of life among these swidden cultivators. Area specialists will particularly appreciate the excellent footage depicting the landscape and activities such as harvesting and husking rice, collecting resin, rafting rivers, shooting fish with spear guns, funeral singing, and music making with a rich array of instruments. The film is well shot and well edited. The soundtrack makes effective use of Wana musical performance. Regrettably, the English subtitles, especially in the first film, contain misspellings—both numerous and distracting.

These films will be of interest to general audiences as well as undergraduate and graduate classes in anthropology, comparative religion, and Southeast Asian Studies. If shown together, which I highly recommend, *Gods and Satans* might well be viewed first because it provides a valuable cultural and regional context for understanding the ritual healing practices presented in the earlier film, *Indo Pino*.



Book Reviews

REVIEW ESSAYS

Sexuality and Social Change: Sexual Relations in a Capitalist System

The Politics of Passion: Women's Sexual Culture in the Afro-Surinamese Diaspora. Gloria Wekker. New York: Columbia University Press, 2006. 313 pp.

Wayward Women: Sexuality and Agency in a New Guinea Society. Holly Wardlow. Berkeley: University of California Press, 2006. 284 pp.

The Purchase of Intimacy. Viviana A. Zelizer. Princeton: Princeton University Press, 2005. 356 pp.

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In 1975, in the classic work *The Traffic in Women: Notes on the Political Economy of Sex*, Gayle Rubin established the importance of the exchange of women between households as the foundation for the sex-gender system. Since Rubin's germinal article, anthropologists have increasingly examined both the influence of commodities on women's sexuality and the treatment of women's sexuality as a commodity. The three books reviewed in this essay address both approaches to the intersection between sex and the economy; collectively, authors Viviana Zelizer, Holly Wardlow, and Gloria Wekker suggest that sexuality has been examined too narrowly as either inimical to the economic sphere or deeply subsumed within it. As an alternative, the authors suggest that sexuality is embedded within the economic sphere, influenced by economic changes yet not determined by them.

Economic sociologist Viviana Zelizer's book, *The Purchase of Intimacy*, examines the relational behavior of intimacy and finances in the U.S. legal and social systems. Using a sophisticated collection of legal cases and secondary data, Zelizer uses an expansive definition of *intimacy* to explore a range of intimate economic transactions from coupling to household commerce. This definition extends be-

yond sexual relations to incorporate usually excluded intimate relations such as the attorney-client privilege, which treats communication of personal information as a type of intimacy.

Zelizer's research challenges the two dominant theories on intimacy and economics—what she refers to as the “hostile spheres” and “nothing but” theories—in favor of a relational theory of economics and intimacy. The “hostile spheres” argument suggests that “sustaining intimacy” and “corrupting markets” are inherently contradictory (p. 40). The “nothing but” argument is a collection of theories that reduce intimacy to factors such as the market or culture without examining the intersection between intimacy and economics. Zelizer proposes instead the “relational” or “connected lives” argument, namely arguing that “people who blend intimacy and economic activity are actively engaged in constructing and negotiating ‘Connected Lives’ ” (p. 22). This relational work includes the negotiations individuals engage in when they blend intimacy and economics in several spheres: coupling relations, “caring” work, and household commerce. For example, the relational work involved in allocating money for children's allowances and the exchange of money or goods for sex is all within the purview of this book.

Zelizer examines data not only on how individuals negotiate this relational work but also on how this relational work is interpreted and policed by the U.S. legal system. Zelizer admits that she provides neither a definitive account of the U.S. law of intimacy nor an account that would be satisfactory for a legal specialist. Indeed, in some portions of the book, it seems Zelizer wanders from one interesting example to another without pausing for detailed analysis. However, from an economic sociology perspective, she analyzes how judges and lawyers attempt to first understand the type of intimate relationship between two parties and then to match these relations with an appropriate legal definition, such as *marriage* or *cohabitation*, that includes an

understanding of appropriate economic activities for that relationship. For example, legal regulation of coupling demonstrates the difficulty in drawing the line between commercial and loving relationships, particularly for ambiguous relations like the taxi hall girls of the 1930s, who exchanged money for dances and sustained extensive and complex relationships with their patrons.

The complex relationship between sexuality, the economy, and individual subjectivity is one component of the traditional ethnographies written by Holly Wardlow and Gloria Wekker. Both Wardlow and Wekker contextualize female sex subjectivity within changing postcolonial capitalist systems, economies that have consequences for both cross-sex and same-sex relations. Where Zelizer focuses on the United States, Wardlow and Wekker instead examine Papua New Guinea and Suriname, respectively, and the consequences of globalization and capitalism on female sexual subjectivity. Wardlow and Wekker describe the impact of economics on female sexuality but also embed sexual subjectivity within the existing religious, political, and social structures. Wardlow deeply challenges existing understandings of sex work in a postcolonial context, particularly the nonmonetary aspects of a heavily commoditized activity. Wekker's account of same- and cross-sex female sexuality in the Afro-Surinamese diaspora contributes to the growing literature on non-Western same-sex sexuality in an age of globalization.

In *Wayward Women*, Holly Wardlow analyzes the agency of Huli sex workers, or "passenger women" (*pasinja meri*), within the context of economic and social changes in contemporary Papua New Guinea. These women are "passengers" because of their increased mobility and defiant independence along with their exchange of sex for money. However, Wardlow expands the anthropological understanding of sex work to suggest that these passenger women are engaged in behavior more complex than simply the commodification of sex. Instead, she locates this behavior within the dramatically changing Huli culture, which is experiencing, among other things, high male out-migration for wage labor and the increasing impact of capitalism on kinship, bridewealth, and marriage. In a kinship system in which women are contained or "fenced in" by husbands and brothers, passenger women are remarkable for their ability to escape; however, Wardlow suggests, this is actually a form of negative agency for women in that they remove themselves from the kinship system.

The theoretical focus of this detailed ethnography is Melanesian female agency, particularly women's sexual agency within the kinship system. Within a context in which a woman's sexuality is owned by her kin, female sexual agency most often takes the form of two types of "negative agency"—namely, "a refusal to inhabit the subject position allocated to one and a refusal to cooperate with projects initiated by others" (p. 66). Wardlow argues that the denigration of women's speech and collective action creates a situation in which bodily agency is more effective. This bodily agency can take the form of female brawls,

finger-lobbing, or, most dramatically, suicide, the permanent removal of one's body from both the subject position and others' projects.

For passenger women, their agency is intricately connected to the transformation of bridewealth as a social institution. Bridewealth is both an institution and a discourse through which female subjectivity is constituted (p. 110). The increase in the number of passenger women is linked to the increasing commoditization of bridewealth and the absence of men from the community, which has contributed to a decline in kinship obligations for men. In Wardlow's analysis, Huli passenger women rarely began sex work for economic reasons but, rather, used such work to channel their rage at a kinship system that had failed them, particularly because of a combination of sexual violence, indifference of male kin, and bridewealth problems. The Huli discourse around passenger women focuses not on the stigma of accepting money for sex but, rather, that passenger women's sex work is seen as "selfish consumption," the accepting of money for something (their sexuality) that does not belong to them. In this manner, the sex work of passenger women is a form of negative agency in which women actively remove their body and sexuality from the kinship system. However, Wardlow wisely refrains from painting a rosy portrait of emancipatory sex work; rather, she recounts the difficulties some passenger women experienced attempting to reenter the kinship system and become encompassed once again.

Wardlow's ethnography is reflexive anthropology at its finest. Her monograph is filled with Huli women's own descriptions of their sexuality and sexual agency, yet Wardlow is cautionary about her analysis, particularly in her account of women's retrospective agency in becoming passenger women. Wardlow examines not only passenger women's escape from Rubin's "traffic in women" but also the way in which they are affecting the existing social structure and creating a new kind of traffic in women.

Gloria Wekker's ethnography of Afro-Surinamese working-class women also deeply contextualizes women's sexual subjectivity within changing economics in a postcolonial nation. Wekker's principle focus is same-sex sexuality, namely, women who engage in "*mati* work" in Suriname. However, she also closely examines cross-sex sexual arrangements. Wekker's analytical focus is the disruption of Western notions of fixed sexual identity with the complex Afro-Surinamese multiplicitous self. As part of this analysis, she traces the origins of sexual behaviors like *mati* work and marriage aversion to West African "grammatical principles" of sexual relationships, which were solidified and transformed in the Middle Passage from West Africa to Suriname. Wekker's account is deeply contextual, embedding female sexuality within the Winti religion, economic changes, the black diaspora, West African practices, and postcolonial relations with the Netherlands.

Politics of Passion begins with a chapter that traces the life history of Misi Juliette Cummings, an 84-year-old Afro-Surinamese woman who was Wekker's main informant

and landlady. Juliette's life history provides an outline of Wekker's theoretical focus and contributes to the existing literature on life histories of Caribbean women. Wekker vividly documents Juliette's eventually successful attempts to seduce her and how she reconciled their relationship with controversies over the "erotic equation" in fieldwork. Although Wekker is deeply reflexive about this relationship and its ethical ramifications, one also wonders about the impact of her relationship with a central community member on her interactions with other informants. Despite the potential complications of Wekker's relationship with Misi Juliette Cummings, her complex relationship with Juliette provides a rich life history and account of mati life.

Wekker's theoretical framework employs social constructionism that is deeply aware of political economy with the location of local meanings in a global context. In Wekker's account, female sexual subjectivity is both flexible because of the multiplicitous Winti self and deeply embedded within the context of Suriname as a postcolonial political economy of inequality based on race and gender. Her descriptions of cross- and same-sex relations are shaped by politics, culture, economics, and most significantly power, an element rarely analyzed in same-sex relationships. This power extends across the Atlantic, as the Netherlands is never far from Wekker's analysis of Afro-Surinamese female sexual subjectivity. At times Wekker's analysis focuses on the ethnosemantics of female sexual subjectivity, particularly the effect of the multiplicitous self in the Winti religion. Wekker analyzes the multiple ways that women refer to themselves and their mati partners, along with the impact of this multiplicitous self on female sexual subjectivity. Yet she clearly differentiates this multiplicitous self from the fragmented postmodern self and the flexible queer self.

The most substantial contribution within this book is Wekker's frank explorations of the sexuality of women involved in both cross-sex and same-sex relations; in this endeavor, she challenges dominant paradigms about black diasporic women's sexuality. Although the focus of her analysis is mati work, she also spends considerable time analyzing cross-sex relationship patterns, particularly marriage aversion among Afro-Surinamese women. Wekker argues that many Afro-Surinamese women prefer "visiting" relationships (in which couples do not live together) over marriage because of the increased independence of such arrangements. Visiting relationships usually revolve around child raising and expectations of conspicuous consumption. Wekker suggests this marriage aversion is a combination of the "templates for relational behavior that were laid down by the dual marriage structure in the formative years of the colony" and "West African grammatical principles" (p. 161). The dual marriage structure, in which Dutch colonials had both a Dutch wife and a Surinamese mistress,

created conditions in which Afro-Surinamese women expected both commodities and sex as a transaction within a relationship but also a degree of independence. West African grammatical principles are part of the "West African archive" preserved by women, particularly working-class women who are insulated from hegemonic middle-class norms about marriage. In these relationships, sex becomes a transaction given at will during visiting hours in exchange for conspicuous consumption and financial support.

Wekker also challenges existing understandings of mati work as a default and argues that instead it is a positive relationship choice for many Afro-Surinamese women, a choice that does not necessarily involve a claimed homosexual self. Her theoretical analysis of sexual subjectivity critiques lesbian studies, which she describes aptly as asexual, focusing on the gender rather than sexual aspects of lesbian life. Mati work "challenges received notions of female sexuality as passive, muted and non-genital . . . it is active, vocal, often genitally oriented and, above all, self-driven" (p. 73). If cross-sexual behavior is commoditized, then Wekker describes mati work as play or sport challenging masculine and Western ideas of subjectivity that emphasize dichotomous and hierarchical thinking. Wekker gives an extensive account of the history of mati work in the Middle Passage history, along with the Winti self. However, Wekker demonstrates that even mati work is not immune to economic and social changes; she details generational shifts in mati work with the devastating turn in the Surinamese economy. In addition, Wekker contradicts the assumption common within gay and lesbian diasporic studies that stable Western homosexual identities will replace local alternative identities in her study of how Surinamese mati work operates in the Netherlands.

Given the context of Zelizer's book, the relational negotiation of intimacy and economics, Wardlow and Wekker both provide convincing and rich studies of female sexuality that is embedded within economic systems yet not predetermined by them. The authors do not create a Marxist base-superstructure argument for female sexuality but, rather, describe the sexual choices and understandings women develop within their economic and social system. This female sexual subjectivity challenges the contradictory paradigms of women's sexuality—the victim of sexual violence and oppression or the emancipated sexual woman—and suggests instead a middle ground of understanding how women express sexual agency within a limiting economy and society.

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COMBINED REVIEWS

Singing the Classical, Voicing the Modern: The Post-colonial Politics of Music in South India. Amanda J. Weidman. Durham, NC: Duke University Press, 2006. 349 pp.

Brass Baja: Stories from the World of Indian Wedding Bands. Gregory D. Booth. New York: Oxford University Press, 2005. 334 pp.

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In *Singing the Classical, Voicing the Modern*, Amanda J. Weidman systematically obliterates concepts of "the natural" and "the traditional" as they are commonly used to authorize the value, form, and practice of South Indian Classical music. Modernity is similarly disintegrated as a necessary antonym in the politics of power and distinction. Chapter by chapter, assumptions concerning voice, instrumentation, performance, and the cultural reproduction of aesthetic values are all demolished by a careful historiography that exposes social, cultural, and technological agents in the production of South Indian classical music.

Weidman is explicitly concerned with claims to power and authority, and the role that these claims have in producing embodied practices of belief and action. The author demonstrates that the fabrication of Indian Classical music was based on a paradoxical claim to modernity and that "claims to modernity were made by certain groups of people for specific purposes; claims to modernity in this sense are claims to power" (p. 9). From this vantage point, the cultural production of Karnatic music emerges as political discourse with stakeholders in region, nation, gender, caste, and class.

Weidman locates analysis in the musical negotiation of this discourse, in which East and West may agree or disagree but they cannot dismiss the necessity of comparison and its implications for the reordering of belief, value, and practice. As it is stated most succinctly in the final pages of the text, "post-colonial discourse demands commensurability with the west" (p. 281). The preceding chapters meticulously document the efforts of diverse interests to define a musical tradition that is both commensurate with the West, on the one hand, and distinct and superior to it, on the other hand.

Traversing these conflicting desires is complicated by the caste-associated traditions that preceded the development of South Indian classical, and the changing nature of

the colonial relationship. Many of the musical practices in place before the emergence of Indian classical were rooted in female, low-caste ritual performers known as *devadasis*. As dedicated singers and dancers, the *devadasis* were central to temple activities and were therefore closely aligned with the system of court patronage that bound temple to palace. Other musicians were employed directly as members of the royal court. Colonial dissolution of this system disconnected lines of support for the arts, opening up diverse opportunities for renegotiating the future of musical aesthetics and for reimagining the past. Avoiding associations with low-caste origins, corrupt politics, and popular music, while still making claims to the ancient and spiritual power of Indian tradition, came to define key parameters of an emerging musical identity.

These claims to traditional authority produced their own challenges as accepted forms of musical practice, musical values, and musical education were set in relation to the Western classical tradition. Bridging the cultural gap between the socially imbedded aural and oral practices of South Indian music and the written literary individualism of Western classical style required profound changes in musical expectations. Weidman's analysis dramatically expands our understanding of this process by detailing the role that technology played in mediating and directing the politics of this transformation.

With voice as the sustained object of analysis, the author frames "the central argument of this book: that voices are created as much from without—by instruments, by technologies, by audiences, and by social forces—as from within" (p. 289). The centerpiece of this cultural production is a disembodied female voice that sings the valorized written compositions of saint composers and is viewed as a natural emanation of divinity. Weidman traces the production of this ideal voice to the convergence of the aforementioned social politics and the influence of the violin, the microphone, written notation, and the gramophone (recording technology). In opposition to the classical ideal of the natural voice—pure expression untouched by politics or history—Weidman posits a vocal aesthetic that is thoroughly infused by culture and technology.

Brilliant and *essential* are two words that are best avoided in any review, and though I made every effort to resist, I cannot properly conclude without invoking them. I have hardly scratched the surface of this well-supported, provocative, multifaceted text. Weidman's book deserves multiple close readings and further discussion by anyone interested in the processes and politics involved in the

cultural construction of aesthetics. Those who have specific interest in Indian Classical music, Karnatic music, or the postcolonial negotiation will be well rewarded by this brilliant and essential read.

Brass bands constitute the largest professional music tradition in South Asia. Almost anyone who has lived, worked, or traveled in this region is likely to have come into contact with a brass band procession. It is therefore remarkable that *Brass Baja* has no precedent. Not only have the bands gone unstudied but they have also no written history and few existing historical references. The brass bands of India have been seen, heard, and ignored for generations.

In this study, Gregory Booth sets out to demonstrate that “the brass band tradition can be interpreted as a musical, anthropological, and historical metaphor for India’s encounter with Western culture” (p. 15). The seven chapters of *Brass Baja* explore this thesis by tracing conflicting patterns of change and continuity across a range of geographically and temporally fragmented oral histories. This oral material is further informed by more than 150 observations of band processions for weddings and other occasions. The lack of historical data precludes the kind of subtle interpretations produced by Weidman in *Singing the Classical, Voicing the Modern*. Although Booth does succeed in highlighting a series of patterns in the colonial encounter, the metaphor that is called for in the thesis achieves only limited depth.

More important than the theoretical claims, and consistent with some of the best traditions in ethnography, Booth has retrieved a hidden world from the long shadow of apathy. In the process, he has illuminated a corner of musical life that has come to parallel the flexible specialization found in unrelated sectors of urban market economies. This is music to go, served lukewarm by anonymous, overworked, low-income, semiskilled laborers who have little incentive to put their hearts into their jobs. Although there are moments when music and musical competition still inspire these men to reach for artistry, these rare gestures are lost on all but themselves.

The emergence of Indian brass bands created an opening for marginalized class and caste groups to pursue new opportunities that were built on existing traditions. Participation of these groups brought the stigma of their low status even as they opened up new channels of livelihood in growing urban environments. Unlike the development of South Indian classical music, in which these negative caste associations were purged as elites sought to produce new realms of status and distinction based on claims to modernity, the brass bands have languished in a kind of ritual limbo. To

their patrons, the bands are necessary symbols of propriety and status. The embedded references to colonization that are everywhere present in instrumentation, fashion, and performance practice are so marginal to the discourse surrounding their participation in weddings and festivals that they are essentially irrelevant to all concerned. Where the South Indian classical discourse was driven by an effort to carefully articulate the status and uniquely Indian nature of the postcolonial tradition, orientation towards the meaning of brass bands is pragmatic at best. Similarly, the musical and symbolic adaptation of band members as agents in the creation of a distinctly Indian tradition is of little consequence to the essentially practical problem of wooing clientele.

Booth’s historical reconstruction emphasizes several general conclusions. The author finds that response to economic changes associated with urbanization have had the greatest impact on the various components of band composition and musical behavior. In addition, market pressures and opportunities instigated by the patrons and customers who purchase the bands’ services have been essential to the growth and transformation of the bands. As patrons’ tastes change in relation to shifting cultural and political contexts, the bands are forced to adapt. This relationship between consumer values and band behavior highlights further shifts in their cultural meaning and value. Traditions—including *jajmani* relationships and processional music itself (which long predates the introduction of instruments and music by the British)—are sustained even as their meanings lose currency. In addition, the logistical requirements of processional music vis-à-vis changes in instrumentation assert significant pressure on the structure and organization of the bands. Mobile musical processions playing in uncontrolled, loud, and often chaotic environments must cope with enormous technical challenges to produce coherent sonorous music.

If the West has become accustomed to the commercialization of rituals with plastic Santas and egg-laying rabbits, Booth’s study of the brass bands of South Asia demonstrates that not only music but also the musicians themselves can be reduced to ritual window dressing. As an investigation of this process, *Brass Baja* is eminently successful, although it is less provocative in its general conclusions about culture change and continuity. Area and subject specialists will find particular value in this text. Scholars who are interested in local efforts to negotiate urbanization, colonization, and globalization will also appreciate *Brass Baja* as a useful contribution to the ethnographic record.

SINGLE REVIEWS

Art as Politics: Re-crafting Identities, Tourism, and Power in Tana Toraja, Indonesia. Kathleen M. Adams. Honolulu: University of Hawai'i Press, 2006. 286 pp.

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Adding to the increasingly rich ethnographic literature on art-making, tourism, and identity politics in Indonesia, Kathleen Adams examines these processes among the Sa'dan Torajans in highland Sulawesi. She centers her analysis on the spectacular carved *tongkonan* (elite ancestral homes) and *tau-tau* (wooden funerary effigies), theorizing these objects as sites of cultural, political, and economic struggles to define Torajan "identity" and "ethnicity."

Lengthy fieldwork stays and six repeat visits from 1984 to 1998 afford Adams an expansive perspective on self-making and place-making. For the Torajans, "identity" emerges in multiple dimensions: as individual subjectivity, as reflexive responses to tourists and anthropologists, as rank within a hierarchy of nobles and nonnobles, in the regional politics of position between the highland Torajans and the neighboring Bugis and Makassarese, and as place within the nation-state. Looking at changes in the production and interpretations of *tongkonan* and *tau-tau*, Adams documents the ongoing negotiation of the relationship of *aluk to dolo* ("the way of the ancestors") to Christian practices and imagery, as the church becomes known as the "big *tongkonan*." The Indonesian government reproduces *tongkonan* imagery on currency and stamps, aestheticizing local culture to serve a national imaginary. Increasing violence between Muslims and Christians in the region engenders the carving of new imagery that projects a Torajan ethical perspective, encouraging peace over violence. Finally, the increasingly available Internet stimulates the circulation of images and ideas that create a virtual Toraja. The reader accompanies Adams as she visits friends, carvers, informants, and church and government officials to see how Torajans themselves conceptualize their place in these various social worlds.

Adams's methodology in pursuing these issues foregrounds the agency of social actors and of objects themselves. She borrows Robert Plant Armstrong's (1971) attribution of "affecting presences" to art objects to account for their emotive force operating on both maker and viewer. While she attends to the changes in the formal properties of Torajan carvings over time, she concerns herself more with the role of such objects in motivating social action. For

the nobles who own them, spectacularly carved *tongkonan* (ancestral home) and rice barns project both kin membership and spiritual identity onto the landscape, but nonnoble tour guides offer alternative readings, instead emphasizing fertility or a generalized ecoconsciousness: evidence that *tongkonan* possess a "polysemic" quality that generates different interpretations by differently positioned social actors and a kind of resistance. Narration in the carvings on the *tongkonan* record shifts in the political and social landscape of Toraja, from references to Dutch colonialism to the inclusion of specifically Christian imagery to contemporary politics via symbols of Indonesian political parties. Similarly the *tau-tau* funerary effigies animate debates about their embodying the "pagan" past of Torajans. Carvers make them more realistic stylistically and less spiritually potent, thus more acceptable to Christians and more collectable and commoditized within the global tourist arts market. This theoretical orientation toward the agency of objects and their participation in a nexus of social relations parallels recent theorizing in the anthropology of art, most notably regarding art and agency developed by Alfred Gell (1998).

Adams documents the reflexivity stimulated by a tourism boom in the 1980s and 1990s as well as her own presence in a long history of Torajan encounters with anthropologists. We see Torajans strategizing to promote their interests via the positions that various outsiders hold, as when Adams's host family assigns her to the Funeral Documentation Committee and the VIP Guest Reception Committee at the funeral of the family patriarch. Adams becomes a mediator and explicator of Toraja funerary custom to powerful guests, as one who could actively and authoritatively challenge any popularly held views that Torajan funerals were wasteful and pagan in nature. The clarity and color of Adams's writing conveys a "you-are-there" quality; the reader sits next to her, drinking coffee, learning the latest news of family, major happenings since she last visited, and carefully crafted interpretations of customs and beliefs. She relegates her meticulous ethnographic explication and theoretical references to footnotes, keeping the narrative lively. This "experience-near" writing strategy renders the fieldwork process seemingly transparent, offering up the challenges and deep pleasures of doing anthropology in a local place with multiple strands of translocal connections. Scholars and students at all levels will find Adams's work engaging and a major contribution to our understanding the dynamics of art, ethnicity and identity, tourism, and the politics of place in the contemporary world.

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Prehistoric Figurines: Representation and Corporeality in the Neolithic. Douglass W. Bailey. New York: Routledge, 2005. 243 pp.

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The last few decades have witnessed the steady erosion of the monothetic belief that female Neolithic figurines from the Balkans and eastern Mediterranean, with their exaggerated reproductive attributes, represent a mother goddess. Most fully expressed by Marija Gimbutas, and complemented by misapplied notions of feminism and simplistic assumptions about ancient cognition, goddessism permeated the scholarly and public imagination concerning these multifaceted objects. In response, researchers have endeavored to demystify prehistoric figurines (both male and female, and in all parts of the world) and have adopted more critical attitudes toward their interpretation.

In *Prehistoric Figurines: Representation and Corporeality in the Neolithic*, Douglass W. Bailey adds to the debate concerning these artifacts in a novel and engaging way. While it is a book about figurines, it is not simply a book of figurines. The text posits no central argument, which, while seemingly problematic, is in fact one of its virtues, considering the plethora of unsubstantiated theories about figurines that already exist. Rather than presenting yet another fallible interpretation of these perplexing objects, Bailey provides readers with a framework for analyzing them. As such, this book is a welcome addition to the recent body of literature on the subject.

The book's chapters alternate between theoretical excursions and specific case studies. The introduction briefly reviews the Balkan Neolithic, aptly reminding the reader that domestication (traditionally, the defining characteristic of the era) was but one of a number of cultural developments during this period. Bailey emphasizes that changes in the built environment, the use of objects, and the treatment of the dead are more relevant to our overall understanding of Neolithic society. Bailey then discusses recent scholarship on figurines and outlines his own approach. In chapter 2 he explores the concepts of "miniaturism" and "dimensionality," calling attention to the fact that figurines are objects meant to be held (not just beheld), which has implications for how they were experienced. In chapter 3 he discusses figurines of the Hamangia culture (in southeastern Romania and northeastern Bulgaria), pondering among other things the selective depiction of some body parts (and the exclusion of others), linking these to the concepts introduced in the previous chapter. Chapter 4 focuses on an-

thropomorphism and includes discussions of 20th-century dolls and portrait photographs to direct the reader's attention to issues of corporeal representation. The case study in chapter 5 treats the decoration and depositional contexts of figurines from Cucuteni-Tripolye sites in northeastern Romania, highlighting roles played by these figurines in establishing social identities within and between communities. In chapter 6 Bailey again pulls back from the ancient material to look at the ways in which visual representations broadly reflect and even create reality. In chapter 7 he presents Neolithic figurines from Thessaly, Greece, primarily focusing on their sexuality. In chapter 8 he synthesizes some of his previous points to discuss the possible agendas of representational art in general. Chapter 9 continues this discussion focusing specifically on Neolithic material.

The alternation between theoretical chapters and case studies works nicely, as the author compels his readers to apply the theories he introduces in one chapter to the empirical data presented in another. He offers little in the way of programmatic answers, opting, instead, to pose series of questions that redirect one's thoughts to broader contextual issues. He guides us to think beyond the depicted subject when considering the social meaning of these objects.

Bailey's writing is clear and erudite. He ably blends the disciplines of archaeology, anthropology, and art history. As a result, the book is a useful teaching and research tool. The case studies can stand on their own and provide readable syntheses (with a dose of historiography) of two little known (and one well-known) Balkan subregions. The theoretical chapters can be read alone or in unison to elicit discussion on how to read prehistoric figurines specifically, or ancient art in general.

The book is not without some minor errors. The scholar cited on page 178 is Catherine Perlès, not Christine. The photos in figure 1.4 (meant to reflect a woman's view of her own body) are upside-down. Bailey also misinterprets the iconography of Hannah Hoch's *Das schöne Mädchen*: the tire, crank, and badges are all parts of BMW motorcycles, not cars and bicycles. However, these lapses in editorial rigor do not detract from the overall intellectual value of Bailey's work. More than anything else, this book invites its readers to think differently about a body of material that has been homogenized and interpreted far too narrowly. Invitation accepted.

The Meaning of Whitemen: Race and Modernity in the Orokaiva Cultural World. Ira Bashkow. Chicago: University of Chicago Press. 2006. 329 pp.

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In this theoretically compelling study of self and other, Ira Bashkow introduces the reader to "whitemen" through the eyes of an Orokaiva community in eastern Papua New Guinea. While the Orokaiva have retained much of their land and their indigenous customs, colonial and

postcolonial contact with whitemen has introduced a new understanding of themselves as politically marginalized and poor in relation to Western modernity. Bashkow's book thus highlights how the moral world of the Orokaiva juxtaposes a critique of white power and domination with the reification of connections between race and modernity. His focus on white people as the "foreign" makes this an excellent tour of critical race studies and basic anthropology, encouraging students of all levels to think through the social construction of whiteness and the culturally productive boundaries between groups of people. As Bashkow notes, "Just as the western 'primitive' may say more about the culture of the West than it does about the supposed primitives, the Orokaiva construction of whitemen ultimately leads us to a greater understanding of the world of the Orokaiva" (p. 9).

In particular, whitemen are associated with the embodied characteristics of lightness, softness, and brightness. Describing whitemen (and, specifically, men) through collective memories of the colonial past and present-day encounters (including with Bashkow himself), the Orokaiva joke about the incredible lightness of whitemen and their ability to overcome great physical distance. While they envy this freedom and mobility, they wonder why whitemen lack important social ties that would keep them bound to their family and community. This moral ambivalence carries over into their description of whitemen's wealth as "visible on their skin" (p. 104). The many comfort goods designed to protect the softness of whitemen (from insect repellent to hand lotion) suggest that they live in an enviable and far less harsh environment, in which people are not required to perform physical labor to secure food and wealth. And, yet, this desire to protect oneself, purchasing precious commodities to ensure one's own comfort, similarly speaks of the selfishness and individualism associated with whitemen. The final quality of brightness is connected to Christianity and to beautiful things that attract attention and display wealth. While whitemen are inherently bright, the Orokaiva avoid attracting attention that might lead to jealousy, as local custom is to offer to others the objects of their desire.

As Bashkow points out, contact with whitemen is now limited for people residing in remote villages—even more so than in the colonial past—and these characteristics are appropriable and manipulable. Thus, the food of whitemen (such as rice, ramen noodles, bread, tinned fish, and tinned meat) are considered light, soft, and weak and opposed to the heavy taro that is rooted, as are the Orokaiva, in the land. Yet whitemen's food is also bright, offering the possessor prestige, influence, and beauty, which explains why these foods are now a mandatory supplement to indigenous foods in gift giving, feasts, and ceremonies. Thus, the critique the Orokaiva offer of Western individualism and power should be understood as infused with a heavy dose of self-criticism, as the Orokaiva use whitemen (and racial hierarchy) as a foil for their own shortcomings. "In taking their skin as evidence for the moral deficiencies that prevent them from en-

joying a whitemanlike prosperity and development, Papua New Guineans are adopting a discursive framework that is thoroughly homologous with colonial racism and the western hierarchy of peoples and nations" (p. 233). These racial assumptions are not easily dislodged or disproved, as they become meaningful racial symbols that move independently of racialized bodies.

What Bashkow describes in vivid detail is the indexicality of race: how objects, activities, institutions, and places become racialized as they take on culturally specific characteristics imagined as inhering in or innate to specific types of people. This observation is not itself new to critical race studies, and it is certainly well-worn among U.S. white suburban youth who need not meet or know actual black people to buy themselves a racialized, "ghetto," masculine toughness through their appropriation of baggy pants, hip hop music, and African American English. As Bashkow rightly redirects antiracist inquiry into the larger, murkier territory of racialization, we are reminded that race has always resided, and thrived, in the myriad of cultural practices through which we make sense of ourselves and others. As a fascinating glimpse into the meaning-making process of race, *The Meaning of Whitemen* highlights the unique contributions our discipline offers to critical race studies.

Visionary Observers: Anthropological Inquiry and Education. Jill B. R. Cherneff and Eve Hochwald, eds. Lincoln: University of Nebraska Press, 2006. 261 pp.

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This book, part of the Critical Studies in the History of Anthropology Series edited by Jill B. R. Cherneff and Eve Hochwald, offers readers a fresh point of view, both on major figures in the history of anthropology and on the subfield of anthropology and education.

Each of the eight chapters focuses on one person, beginning with Franz Boas and moving chronologically through his students, Ruth Benedict and Margaret Mead, to their contemporary, Hortense Powdermaker; through Mead's and Benedict's students, Gene Weltfish, Jules Henry, and Ruth Landes; then to Solon Kimball, a student of W. Lloyd Warner's at Harvard; and, finally, Eleanor Leacock, at one time a student of Gene Weltfish. Looking at the table of contents, it seemed a broad and somewhat nebulous stretch to include all these people in a book devoted to anthropology and education, but on reading it, the intent of the editors became clear. Educational anthropology has become a focused and somewhat narrow field, involving fieldwork within schools. The editors want readers to think about educational anthropology in a broader way and to define *education* itself as not necessarily connected with schools. But readers can still follow the development of the field of anthropology and education from its diffuse beginnings to its specific origins in the 1954 Stanford University

Conference on Education and Anthropology and major studies afterward.

At the same time, in delving into the history of anthropology in this different way, focusing on educational efforts of major figures who are usually written about in terms of other contributions to anthropology and to the times in which they lived, the book provides a stimulating freshness to the historical narratives. As each author grapples with the repositioning of these historical figures, several also are grappling with reframing the significance of their subjects' careers in response to criticisms that have been leveled at them, which also provides a new angle of vision on such well-known figures.

Regna Darnell, for example, writes about Franz Boas as a public educator, first in museums by inventing a new form of exhibit that examined tribal cultures as wholes, which went beyond the piecemeal exhibits of human evolutionary stages or artifacts arranged chronologically with no rhyme or reason otherwise, that had been common in the 19th century. She examines his role as an educator of students of anthropology, then finally as a public intellectual, trying to educate the public and reform U.S. policies through his writings. Yet she also enters the academic debate about Boas and his place in the history of anthropology, rejecting the idea that Boas was not theoretical, arguing that there was, in fact, a "Boasian paradigm" (p. 21). Darnell argues about the role his Jewishness played in his anthropological work, not seeing it as of primary importance as Lee D. Baker had in his book *From Savage to Negro* (1998). She also examines the modern critiques of his immigrant head studies, seeing his work as reconfirmed in 2003. The overall result is a refurbishing of the reputation of Boas in a critically argued way.

In another example, Ray McDermott avoids the obvious and shies away from examining Margaret Mead's specific work on education, for example, in *Growing up in New Guinea* (1930) or *The School in American Culture* (1951). Instead, he looks through her career to tease out her theory of learning, which he describes as "learning as laterally connected among people doing things together" (p. 73), as against the general U.S. idea that learning is information stored in the brain. Like Darnell on Franz Boas, McDermott also spends time going over academic arguments on Mead's career and place in anthropology, offering a critique of her work in Samoa and in anthropology in general.

In another example of a fresh approach, a reader might expect an article on Ruth Benedict and education to focus on her work on race. For example, Benedict actually worked with a teacher in 1941 to write a Resource Unit for high school teachers called *Race and Cultural Relations: America's Answer to the Myth of the Master Race*, widely distributed by 1942 and seen by educators as an important contribution at the time. But Virginia Heyer Young, a former student of Benedict's, takes different angles in studying her. First, she examines her as a teacher of anthropology students; later, she looks at processes of cultural learning that Benedict studied, particularly her work on the lack of learning

in U.S. culture concerning how to make the leap from adolescence to adulthood, and her work on shame and guilt as motivators of cultural learning.

Each of the chapters in this book offers new insights into both the relation of anthropologists to education and the place of each person studied in the history of anthropology and of U.S. culture. Editors Cherneff and Hochwald have done an excellent job of not allowing repetitious material, although information in certain chapters overlaps. Their brief overviews of the lives and careers of each person at the beginning of each chapter add to the reading of the book.

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Hip-Hop Japan: Rap and the Paths of Cultural Globalization. Ian Condry. Durham, NC: Duke University Press, 2006. 249 pp

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When Daisuke Matsuzaka arrived in Boston as the latest Japanese star baseball import, he was immediately given the moniker of "Dice-K," a recognizably rap-derived nickname that had the added benefit of helping Red Sox fans pronounce his name. U.S. citizens are aware that rap culture not only exists in Japan but is also a prime element in the "coolness" of the globalizing Japanese pop world. Ian Condry's new treatment of Japanese popular culture, *Hip-Hop in Japan: Rap and the Paths of Cultural Globalization*, shows that globalization does not simply mean that cultural forms migrate, are borrowed, or colonize: he shows that hip-hop music and its performance demonstrate more subtle and complex aspects of connection, reflection, and hybridization. Through a nuanced discussion of the relatively short history of this phenomenally successful musical form, this work shows the limited use of such polarities as global–local, national–international, domestic–foreign, and Western–Japanese, as well as the usual contrasts between the little-guy musician and the corporate powers creating him and his market. While the rhythms and forms have traveled and taken root in Japan, the most popular rap music is not copied or borrowed from African American rap culture but made in Japan. Condry shows that youth in Japan want the "real thing," the *hommonio*, and to them "reality" lies in

the spaces where they make and hear their own musical expressions.

The strengths of this book lie both in the novelty of its analytic strategies and in the vivid and telling descriptions of place: the reader feels the heat and the thudding beat of the club in the early dawn hours. Condry describes the creativity and experience of Japanese hip-hop as situated in the physical space of the *genba*, or "real place," where music is performed and fans and musicians experience connection. The connection that is enacted in the places where music is made—in the senses both of creation and performance—is not only between musicians and audience but also between cultural values, discourses of gender, and usages of language. The space, as Condry says, is not packaged, routinized, or uniform: it is "real" to those who come there exactly for that "reality," not only the passive receipt of sound but also active engagement in the exchange between fan and performer, an exchange that creates its own meanings.

The book raises interesting questions: Is Japanese rap a "cross-cultural theft" or is it part of a wider emerging global movement, treating economic oppression, injustice, and the suppression of distinctive voices? Is its "authenticity" borrowed, transgressed, or created new in new spaces? What is "Japanese" about the musical form and its fans is in the detail: the cultural contexts shaping performance, language, gender, and content. Condry notes that rap in Japan indeed has expressions of resistance and revolution; the section on rap as liberating the Japanese language is particularly of interest. Rap lyrics have shock effect but their purpose is not as much to confront as to smash through deadened sensation, to help the singers and fans come to life, and to bring out latent creativity from the "no-feeling, no-motivation" emotional state in which many young Japanese people are said to find themselves. Indeed, Condry shows, rap music does provide an antiestablishment, antinationalist critique of society for the awakened youth, discourses operating outside the narrow confines of school, work, or family.

Not all rap in Japan is so serious: "party rap" provides humor and the flirtation and heartbreak of romance, as contrasted with the more hard-core topics and sounds that come from "underground" rap. It appears that the female rap artists, however edgy and innovative compared to their counterparts in Japanese pop music, are still associated with "cute culture": the feminine side of rap is still an aspect of the pinkly provocative *cutismo* others such as Sharon Kinsella and Christine Yano have described. There is a certain ambiguity in the involvement of women in rap culture in Japan. We hear about how the "Japanese doll talks back!" and the "female samurai," as well as images of cherry blossoms falling on black hair. That there is no singular image of women in rap speaks to the changing and multiple sources of creativity in the rap scene. Will the "anti-cutismo" that some, such as Miss Monday, express become a widespread musical resistance to Hello Kitty and her mouthless passivity?

Hip-hop culture, including rap, is not as specific to race and history as many might assume: it is shape-shifting, hy-

bridizing, mocking, resisting, domesticating, and globalizing; it is still creating itself and the spaces it inhabits and informs. As Japanese rap matures in art and in the lives of its makers, will it rigidify in its conventions as other popular music has, become uniform and predictable, standardized by the market forces of late capitalism, or will it continue to have the creative fluidity that marginality and instability and the spontaneous immediacy of the *genba* provide?

Encyclopedia of Prostitution and Sex Work: Volume 1 (A–N) and 2 (O–Z). Melissa Hope Ditmore, ed. Westport, CT: Greenwood Press, 2006. 782 pp.

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Finally, there is a major, comprehensive reference on prostitution and sex work, including over 300 entries written by nearly 200 experts in the field. The *Encyclopedia of Prostitution and Sex Work* also includes primary sources and texts, and suggestions for books, articles, websites, and films to guide further explorations. This two-volume set is impressive in the breadth of its coverage and the quality of entries, providing an excellent resource for researchers, teachers, and students. It offers regional and city-specific information, as well as historical entries covering major events in the history of prostitution (and its regulation) and illustrating the concepts that have been used to understand this compelling topic. The volumes cover early historical moments such as the role of prostitution in financing the Egyptian pyramids and in the arts throughout Asia and Europe, as well as the shifting attitudes toward prostitution illustrated through the tolerance of the Middle Ages, the condemnation of Protestant Reformers, the moral panics of Victorian London, abolition during the Prohibition Era, and the legalization (and regulation) of prostitution in contemporary Nevada, Amsterdam, and New Zealand.

The introduction begins with an explanation of the concepts of "prostitution" and "sex work" and the ways that these terms have been used in the text. Although Ditmore states that contributors use the terms nearly interchangeably throughout the text, she provides a good overview of changing attitudes toward these terms, the political and legal ramifications of calling prostitution "sex work," and the reasoning many advocates use in favoring a term that allows them to raise awareness about the labor issues involved in the industry. She also takes care to point out, with great sensitivity, why sex work is chosen over, or used in conjunction with, other forms of work, moving beyond hypotheses that focus on childhood abuse and drug addiction. Ditmore accomplishes this by addressing such issues as the autonomy and flexibility it offers, the variety of workplace venues, the complexities of child care, the drudgery of many other lower-paid occupations, the relative ease of entry into sex work in terms of a lack of prior experience or training, and the ability to fulfill short-term, temporary financial needs or build capital for future investments in settings where opportunities for social mobility remain scarce.

Next, Ditmore summarizes the impact of social stigma, local laws, and occupational health and safety issues faced by sex workers, as well as the lack of legal protections against workplace violence and targeted violence and killings of prostitutes more generally. Throughout history, prostitutes have been blamed for infectious disease, social disorder, and moral decline. As a result, they face heightened surveillance, physical and social controls that may impede their ability to manage the risks of their occupation, and damage to their social, mental, and physical health. While important work still needs to be done, those who seek to advocate for sex workers through human rights work, support services, or even scientific research face similar stigmas and often risk professional ostracization as a result of their commitments.

Given the strengths of this collection, it is challenging to think about what could be improved in a future edition. My primary critique is that it could benefit from a more organized analysis and sustained focus on the demand for prostitution, especially regarding the shifts in demand as a result of socioeconomic transformations at the local and regional levels. Although there are a variety of entries that point toward the importance of socioeconomic context in understanding fluctuating demand (e.g., colonialism, mines, penal colonies, ports, prisons, tourism, etc.), they are placed among other topics less specifically related to the material conditions of prostitution. The topic itself remains untheorized within the introduction to the collection. Instead, when referring to demand for prostitution, Ditmore states: "Why would anyone sell sex? Because men, and it is predominantly men, buy sex. In short, sex sells. The libido is a fundamental human drive" (p. xxx). I would argue that this further naturalizes, normalizes, and individualizes the material conditions that create increase the demand for prostitution among particular groups of men, in particular locales, at particular moments in history. The role of economic collapse and emerging markets, changing political economies, labor relations, and living situations need to be framed as forms of structural violence that have had a profound impact on demand for prostitution. Thus, while Ditmore does much to denaturalize reasons for entering the profession, she could strengthen her argument by dealing with demand in a similar manner.

Protecting Çatalhöyük: Memoir of an Archaeological Site Guard. Sadrettin Dural. Walnut Creek, CA: Left Coast Press, 2007. 160 pp.

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The cover blurb of *Protecting Çatalhöyük* modestly advertises its value as offering a "fresh, new perspective" on the work of archaeology, but archaeologists and anthropologists will quickly appreciate that this is a revolutionary publication. First, it draws our attention to a figure essential to archaeological practice but usually invisible in archaeological accounts: the site guard. But there is another, more significant reason that this book is unique. While there is a minor but

distinguished trend in anthropology to write about a single ethnographic informant and even to showcase that person's own words and writings, this is no mere ethnographic study of a previously neglected subaltern subject: *Protecting Çatalhöyük* is written by, not about, a site guard of this famous Neolithic site in Turkey.

Dural's memoir offers compelling accounts of the financial struggles of Turkish villagers, the vagaries and inequalities of a tourist economy, and local imaginations of links to ancient pasts. He shows us the archaeological site year-round, even when it is dormant, the tourists have gone, the foreign excavators are back in their home universities, and the site guards are alternately bored and haunted by the Yatirs, the spirits of the mounds. (The latter physically abuse Dural and his wife, and they haunt locals who try to loot the graves, but, perplexingly, the Yatirs leave the foreign excavators alone. Dural can only conclude that they must not object to the archaeologists digging.) Dural is gentle with his subjects and writes with both humor and empathy about the foreign archaeologists' social foibles and the antics of tourists who strip naked to bathe in public and enact peculiar rituals that involve eating the site's dirt and running about, yelling, "Mother goddess! Mother goddess!"

Yet it is also a strikingly foreign text. The strangeness of the book is not in Dural's descriptions of having to burn tires to keep his infant child warm when they run out of fuel in the middle of the winter, or of waking up in the middle of the night in the guard house, terrified after again being slapped on the face by the spirits that guard the mound; no, spirits and poverty are familiar territory for anthropologists. Rather, what seems truly foreign is the writing itself: the way the narrative is structured, the apparent non sequiturs, and the frequent digressions into memories of old flames and AIDS scares, trips to the beach and sexy bathing suits, rescued storks and dogs, and calls to a local erotic phone line. All of this is at the same time jarring and unexpectedly entertaining, and, ultimately, what makes the book compelling. It is only well into Dural's account that it becomes apparent that one of his risky trades, buying and selling cars for a profit, while seemingly just one of the many digressions in his meandering memoir, is actually the set up for a small disaster looming at the end of the book, and only at the very end that we understand how writing this book is a redemptive act.

Ian Hodder, who has directed excavations at Çatalhöyük for more than a decade, gently gives the book a push into the academic sphere with a foreword and an afterword in which Hodder interviews Dural about his attitudes toward the politics of archaeology, the attitudes of local villagers toward the excavations and the foreign archaeologists, and his motivations in wanting to write and publish a book. The last sentence is Dural's, in which he suggests, cheerily, "that people who want to be heard should write and send it to some publishers" (p. 160). But any aspiring author knows that books do not get published just because someone wants to be heard. A considerable behind-the-scenes effort on the part of the

whole excavation team was clearly instrumental in the publication of this amazing work, and it is this, as much as any other output of the Çatalhöyük research project, that marks its successful innovation to standard disciplinary practice as a multivocal archaeological site (Hodder 1997) that engages not only with the past but also with multiple factions of the present.

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Afro-Central Americans in New York City: Garifuna Tales of Transnational Movements in Racialized Space. Sarah England. Gainesville: University Press of Florida, 2006. 273 pp.

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Transnational spaces are becoming increasingly complex and contextualized in a variety of ways. In *Afro-Central Americans in New York City*, Sarah England shows how Garifuna inhabit numerous spheres of interaction and constantly renegotiate their identity as part of their struggle to rise beyond poverty and marginality. Using multisited ethnography, England focuses on the linkages between transmigration and ethnic social movements. The author's central argument is that the transnational character of Garifuna experiences with race, class, and gender create a diverse milieu of opinion, in which individuals and groups within the Garifuna community use contrasting strategies and discourses to inform social movements focused on poverty alleviation, political rights, and discrimination in Central America.

Garifuna are the descendents of a maroon society that intermarried with native Carib–Arawak, whose current population is concentrated in Honduras, Nicaragua, Guatemala, Belize, and the cities of Los Angeles and New York. Garifuna identity is shaped by the fact that they are a part of three diaspora: from Africa to the Americas, from their homeland in St. Vincent to Central America, and from Central America to the United States. Garifuna have a long history of migration, and while their destinations have changed over time, the practice of migration has remained the same. Garifuna may migrate for economic reasons, but the concept of "migration" is embedded in their culture.

Depending on the context, Garifuna identify as black, indigenous, Garifuna, or Latino. Identification with these groups is both simultaneous and distinct. In Honduras, they identify themselves as black, indigenous, and Garifuna; however, in New York, they identify as an Afro-Hispanic population. Garifuna organizations in Central America claim to be autochthonous but do not always claim to be indigenous. Identification as "autochthonous" allows

Garifuna to claim the same rights as indigenous groups but maintain their blackness.

England explains how the transnational character of Garifuna community affects their interpretation of kinship, household, and community. Garifuna maintain a tradition of matrilocality that acts as a glue to hold together Garifuna society. Indeed, Garifuna living in the United States maintain family ties through remittances and participation in ritual events that are simultaneously celebrated in both locations. Yet some Garifuna feel that migration has consequences of family disintegration and loss of culture. They cite the "double-edged dollar" as helping their family but fostering dependency on remittances. Even though Garifuna villages have widespread unemployment, landlessness, and high costs of living, they often appear prosperous because of transnational income.

The socioeconomic conditions of Garifuna transnational communities transcend borders and are shaped by the way Garifuna negotiate local circumstances. England relates that nearly all Garifuna in New York express a desire to return to Honduras, but most never advance beyond low-paying jobs. In both Honduras and the United States, Garifuna are peripheral to larger society, but migration is viewed as a way to succeed economically and raise their class standing in their home countries. Although Garifuna suffer "double marginalization," they justify their belief that migration is a means to upward mobility, saying, "The poor there [in the United States] are rich here [in Honduras]" (p. 136).

England discusses how Garifuna grassroots organizations have competing ideas of migration. Whereas some organizations believe that transnational households bring progress and modernity to Honduras, other organizations believe that migration fosters a climate of social disintegration. These contradictory consciousnesses manifest themselves in different strategies and social actions taken by grassroots organizations. To illustrate these contradictions, England compares the ideologies and actions of two grassroots organizations that focus on development issues facing Garifuna in Honduras: one based in Central America, the other in New York. The Honduran organization identifies obstacles to community development as poverty, racism, and cultural discrimination. They believe that migration is not a solution to poverty and, instead, encourage Garifuna to increase their independent production and self-sufficiency. In contrast, the New York–based organization holds that lack of infrastructure is the primary challenge to economic development, and they use hegemonic discourse to promote poverty alleviation through large-scale projects such as rural electrification.

Afro-Central Americans in New York City provides an excellent account of how transnational culture informs social movements, the negotiation of development processes, and reformulation of ethnic identity. England makes her case using rich, thick description based on firsthand narrative accounts to provide a window of insight into the complexities of transnational Garifuna culture. Weaving together

issues of race, gender, class, ethnicity, and nationality, and the ways they are experienced in different spatial contexts, England shows the dynamism of transnational culture as migrants constantly renegotiate their socioeconomic position, their identity, and their culture.

Perfection Makes Practice: Learning, Emotion, and the Recited Qur'an in Indonesia. Anna M. Gade. Honolulu: University of Hawai'i Press, 2004. 348 pp.

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Anthropologies of ritual and emotion rarely overlap with anthropology of education, but Anna Gade's book on Qur'anic recitation in Indonesia does just that. For the past 30 years, Indonesia has been experiencing an Islamic resurgence, one effect of which has been the increased popularity of Qur'anic recitation. During the 1990s, adults, schoolchildren, and university students were drawn to studying, reading, and vocalization of the Qur'an under the tutelage of renowned teachers, in Islamic boarding schools, voluntary clubs, and through cassette tapes, radio call-in shows, and regional and national recitation competitions. Gade, a religious studies scholar, conducted research on this topic in the late 1990s in Makassar, on the island of Sulawesi, and in the national capital, Jakarta. Gade argues that comprehension, memorization, and recitation of the Qur'an is appealing for Indonesian Muslims not simply as accomplishment but, rather, as affective experience.

Gade's informants repeatedly pointed out that the Qur'an itself requires Muslims to master correct and heartfelt comprehension of the text, with the promise of remaking the self in the process. Gade argues that a mix of learning techniques used in Qur'anic recitation cannot simply be dismissed as rote memorization. A true and inspiring reading had to come from a sensate, accurate, and lyrical engagement with the text. Gade explicitly, and convincingly, rejects a functionalist interpretation that students of Qur'anic recitation pursue perfect mastery of the text in an attempt to maximize some other more "real" material interest. Rather, she argues that the sense of piety that comes with correct and skillful execution generates new levels of self-understanding and inspiration that are their own motivations. Experiencing the Qur'an through recitation is the reward.

Gade engages several literatures to make this point. She reads widely across religious studies and anthropologies of ritual, emotion, music, and education, making this a book that will be of interest to scholars of those fields, in addition to scholars of Muslim Southeast Asia. Following a thorough introduction to multiple literatures, the first two chapters lay out the basic modes of learning and memorization employed by teachers and students. These chapters show how the proper Islamic comportment required and achieved through recitation positions the text as something to be preserved and felt. As a group of young mothers who studied together explained, studying the Qur'an

sets an example for one's children that studying never ends.

The fourth chapter focuses on the expressive and performative aspects of recitation, while the fifth reveals the enforcement and application of standards in recitation. It is in this section that Gade lays out her claim that students' motivations are not simply reducible to self-improvement. On the one hand, students and teachers insisted that memorization is not enough and that performances must be heartfelt. On the other hand, curricular content and expertise on pronunciation acquired in Middle Eastern countries was highly valued. These interests intersected most publicly in the increasingly high-stakes and often televised venues of regional and national competitions, which were deemed healthy for revitalizing Islamic identity precisely because they would in turn motivate Qur'anic study (both for participants and audiences): the true benefit.

Gade is to be commended for capturing with close ethnographic detail the growing world of Qur'anic education in Indonesia and for posing a number of compelling questions about that world. However, the strength of her project, its explicit interdisciplinarity, may also be its weakness for some anthropologists. Anthropologists of Indonesia familiar with the period during which Gade conducted her research may wish for slightly more engagement with the strong overlaps among the personal development ideologies of that political moment. That time that saw a marked proliferation of discourses, secular and religious, celebrating national and personal development as linked projects, often through nonstate sites such as mass consumption and religious expression. Gade's analysis is admirably rooted in her respect of her informants' explanations, but had she asked slightly different questions of their responses, the book might have been able to address the dilemma common to much social research: How does one simultaneously take what people say seriously while recognizing that individuals are embedded in larger systems of structure and power that can influence those statements?

Practicing Ethnohistory: Mining Archives, Hearing Testimony, Constructing Narrative. Patricia Galloway. Lincoln: University of Nebraska Press, 2006. 454 pp.

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In this 2006 volume, Patricia Galloway draws together articles written over the course of her career in a successful effort to synthesize a cohesive vision for the process, methods, and practice of ethnohistory. One of the most productive and exacting scholars in southeastern native studies, Galloway shows us that realizing the connections between archaeological glimpses of populations and historically known and contemporary peoples is an enterprise that encompasses the holistic four-field approach at anthropology's traditional core. Critical imagination, grounded in meticulous research and supported by an unflinching

engagement with the topic, is the primary hallmark of this collection of work.

Galloway's approach to her primary ethnohistorical focus—the Muskogean tribes in the southeast, particularly the Choctaws—is informed by her background in French literature and language. According to her autobiographical notes in the introduction to the volume, her engagement with the ethnohistory of the southeast was prompted by her interest in the French texts of the history of the early contact period, which were numerous and that had been left largely unexamined. By analyzing these texts, as one would using the lenses of comparative literature, Galloway is able to generate critical inquiry about the contexts in which the documents were written and precisely what the texts represent.

Turning this same critical eye toward the documents of the Soto expedition, Galloway penned the chapter “The Unexamined Habitus: Direct Historic Analogy and the Archaeology of the Text,” which emerges as the theoretical center for the rest of work included the volume. Galloway's ease with the various iterations of Pierre Bourdieu's formulation of the notion of “habitus,” as well as her own catholic interests and education, allow her to forge important connections among a variety of disciplines. She constructs a model for protohistoric interaction that is founded not only in the text-based disciplines of history and narrative studies but also in the cognitive sciences by incorporating interaction frames as rationales for action and rational motivations for the behavior of individuals on both sides of the colonial exchange. In doing so she takes anthropologists working on the problems of the Soto route at that time to task for their naïveté in their assumptions of the similarities between themselves and the 16th-century Spaniards and in their willingness to accept text as truth. Although much of the work on retracing the Soto expedition has been concluded at this point, including her own edited volume on the subject, Galloway's article serves as a time capsule, crystallizing in that moment her analysis of and perspectives on the methods and process engaged to solve what seemed an almost intractable set of questions.

The time capsule quality of the articles in *Practicing Ethnohistory* is at once part of its significance and also its only real drawback. The 21 chapters collected here can be seen as metadata on the evolving process of the practice of ethnohistory, an insider's view to the development of the field. The articles were either previously presented but not published or more often published in volumes or journals that are often difficult to access. Having these articles collected here in one volume is a boon to researchers, especially those concerned with research pertaining to documents and archaeology from Mississippi. Given Galloway's prodigious and productive scholarship, however, it is possible to find oneself expecting and desiring more recent work in which Galloway focuses on more current ethnohistorical questions or reexamines her own findings in light of new evidence. This is, however, small criticism in light of the depth and breath of the work contained in the volume.

Overall, *Practicing Ethnohistory* illustrates the breadth, depth, and varieties of research required to gain a complex understanding of the sparsely documented past of the southeast. By broadening, and at the same time specifying, the contexts for inquiry and interpretation of data, Galloway charts a course for ethnohistory that extends beyond simply re-envisioning the past through the reexamination of documents and archaeological findings. Instead, she requires us to critically assess the processes at work during the colonial period, the lives at stake in every interchange, and the assumptions we bring to bear on our interpretation of this critical time frame. Ultimately, our awareness of the lives of contemporary southeastern peoples, their national sovereignties, and the lasting results of their adaptations to the tumult of the colonial process are dependent on works such as Galloway's.

Saving Languages: An Introduction to Language Revitalization. Lenore A. Grenoble and Lindsay J. Whaley. New York: Cambridge University Press, 2006. 231 pp.

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The predictions and causes of a vertiginous decline in the diversity of languages worldwide have received a good deal of popular and scholarly attention in the last decade. Linguists Lenore Grenoble and Lindsay Whaley already have edited one very fine book on this topic (*Endangered Languages* [1998]). With this more recent publication, their aim is to not to document this decline but, rather, to provide a framework for counteracting it. They begin, however, on a sobering note: Most efforts to revitalize endangered languages do not succeed.

The book is intended as a general reference for scholars and practitioners interested in language revitalization, and while it is by no means a “how-to” manual, its contents reflect this practical orientation. There are seven chapters in this slim, but at times dense, book. The first two chapters offer a general analytical framework for conceptualizing the processes and variables affecting language decline and revitalization. Language activists I have worked with have often told me they longed for such a theoretical grounding. It is not so simple a task, however. As the authors show, part of what makes language revival so complex a form of social engineering is the dizzying array of variables that can potentially influence choices people make about what language to speak: from the attitudes and life conditions of speakers to the available material resources, national level politics, and policies on education, as well as the repercussions of other social movements. The authors do a fine job synthesizing and methodically mapping out this array of factors, clustering them into “macro” and “micro” variables.

Subsequent chapters review the different educational models currently in use for teaching endangered languages: from total immersion schools, known to be the most effective, to “bilingual” programs, as well as the well-known “language nest” and “master-apprentice” programs

developed by Maori and Hawaiian language movements (ch. 3). They devote one chapter to the topics of literacy (ch. 5) and another to criteria for the development of an orthography (ch. 6). These are the most technical sections of the book for the nonlinguist. The authors are explicit that their intent is to serve the needs of teachers and planners for whom the issues of literacy and orthography are quite fundamental and who may need guidance in the complexities involved. The final chapter offers a step-by-step guide to how a community can assess its needs and the vitality of its language, determine resources, and then design a program for itself. Throughout the book, descriptive snippets of specific cases are used to illustrate the analytical claims and the authors devote one entire chapter (ch. 4) to case studies. But it seems fair to say that this book is written for people who are probably very familiar with the lived experience and crave a wider perspective and some analytical guidelines for establishing priorities and strategies.

The authors have an impressive command of the existing literature and give us an approach that is both theoretically sophisticated about language as a social practice and solidly sensible. They build on the work of Joshua Fishman, long the doyen of reversing language shift (RLS), stressing, as he did, the centrality of securing intergenerational transmission as the key to language survival. But their claims are more nuanced and effect a skillful bridge between theories of language and practical concerns. Readers familiar with this topic will notice many an astute observation that can only come from a good deal of knowledge of many cases and careful reassessment of some of the taken-for-granted goals of revival. They do not, for example, argue that a language must always be preserved, or that literacy or even creating speakers must always be a goal. At the same time, they underscore the variable ways that people may identify with or feel ownership over a language for historical or cultural reasons rather than an ability to speak it. Classic concepts of bounded speech communities are inadequate to describe the configurations mobilized in endangered language movements.

Language revival is hard work, say the authors, requiring frank assessment and long-term and sustained efforts by many parties on many fronts (p. 48). If there is one overarching message to the book, it is that while no one method of teaching or advocacy will work for all situations, history has shown that success requires two things: compromise and local involvement. As elusive as success may be to date, it is clear that it is possible only when the local community takes ownership of the process and is actively involved.

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The Environment in Anthropology: A Reader in Ecology, Culture, and Sustainable Living. Nora Haenn and Richard R. Wilk, eds. New York: New York University Press, 2006. 493 pp.

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The world is going down the tubes. Has anthropology done any good along the way? *The Environment in Anthropology: A Reader in Ecology, Culture, and Sustainable Living* takes on the task of presenting the diverse palette of work in ecological and environmental anthropology in a coherent frame for students who desire an introduction to the field. I used this reader in my undergraduate course, "Introduction to Ecological Anthropology," at the University of British Columbia last term. This review is written primarily from the perspective of classroom use and incorporates students' comments. The volume is structured by the editors' question: How has anthropology contributed to solving environmental problems such as population growth, economic development and underdevelopment, biodiversity loss, environmental management, indigenous environmental concerns, consumption, and globalization? It is a good question. The pieces in this reader illustrate how we have thought about these problems, what we think about people who are doing something about these problems, and how far we still have to go to begin to solve these problems. The book is divided into seven sections with abridged articles covering these topics, with three stated themes or methodological stances that guide the editors' choices for this reader. These are (1) the need for diverse perspectives and voices, (2) creative and critical inquiry that draws on the best that multiple frameworks have to offer, and (3) the mobilization of engaged activism on the part of environmental anthropologists.

With 42 abridged articles dating from the mid-1900s to the early 2000s, this compilation is a rich sampler that successfully illustrates the diversity of work in the field, delivers some of the best examples of interparadigm synthesis that this discipline requires (although for some reason Roy Rapaport's contributions were overlooked on that point), and includes several works with evocative, motivating writing that expose ethical imperatives and narrate anthropological activism. It is wonderful to have so many great ideas in one book. My students appreciated the breadth afforded by the compiled articles, although some found it bewildering that a discipline should be so methodologically fractionated (or, if you prefer, "diverse"). Although at first I was skeptical, I soon came to appreciate the abridgement of the articles as a reasonable way to make more primary material available without information overload. Students liked this, too, although they wanted a glossary and more guidance in the introductions to each section.

The most disconcerting aspect of this reader is its failure to adequately inform the student of the historical and intellectual contexts in which the authors wrote their articles. A seminal piece by Leslie White is introduced as being "out of step with current anthropology" because of its (social) evolutionary perspective (p. 137), but there is no indication of the context White worked in. Indeed, because of one of several copyediting oversights, White's abridged

article has no attribution or full citation, such that the only clue that he is not a contemporary theorist is in the back list of contributors, in which he is described in the past tense. It is difficult to find original publication dates for many of the articles. The work of Esther Boserup and others is similarly decontextualized in the introductions to each section, lending a strange quality of temporal unidimensionality to the volume. This is not a fatal flaw, however, as it may be remedied in the classroom. For example, I have students create graphic maps of intellectual genealogies to trace idea lineages, contextualizing these within historical and epistemological developments of the past century.

This volume sets up a specific question at the beginning (how has anthropology contributed solutions to environmental problems?), and it answers it as the discipline itself has: by telling stories, exploring back alleys, analyzing the semantics and power play inherent to the question itself, borrowing concepts and theoretical tools from neighbors (and forgetting to return them), and every so often attempting a leap toward holism. The answer to that question about solutions to environmental problems does not emerge on its own from the collected readings. Indeed, one is left with few answers and many more questions. Although this is a comfortable result for an academic, it does not necessarily bode well for our societies and our "environmental problems." Nevertheless, the overriding message of this reader is that positive change and hopeful futures are possible through environmental anthropology. I am grateful for this, as I often struggle to avoid communicating my most honest accounting of our socioenvironmental future to my students, based on cultural and historical comparisons, because it is just too stark. This reader gives me something to hide behind.

Más que un Indio: Racial Ambivalence and Neoliberal Multiculturalism in Guatemala. Charles R. Hale. Santa Fe, NM: School of American Research, 2006. 292 pp.

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The corpus of ethnographic literature on Guatemala has almost exclusively focused on Mayas, despite the fact that others live there. What we know about these other people has been, in large part, cursorily presented from the margins of a plethora of ethnographies about the Maya. Charles R. Hale's book *Más que un Indio: Racial Ambivalence and Neoliberal Multiculturalism in Guatemala* helps to rectify this situation. It is an ethnographically rich and theoretically compelling book about how middle-class ladino Guatemalans conceive of race and their racial position in relation to Maya efflorescence.

For the non-Guatemalanist, ladinos are those who, to use Hale's title, are "more than an Indian." They distinguish themselves from Mayas on both cultural and phenotypical bases in an effort to preserve perceived and real social privileges. Given the ethnographic specificity of this topic, I want to emphasize that this book is an important

ethnographic contribution beyond its Guatemalanist audience. *Más que un Indio* can help further our understandings of the concepts of "race," "racism," "neoliberalism," and "multiculturalism," especially with respect to how these concepts are politically interrelated and culturally contextualized. Additionally, Hale addresses impasses in ethnic identity research by redirecting our orientation toward race. This allows him to ask questions about social relations in distinction from ethnicity scholars. Also, he reveals that Guatemalan conceptualizations of "race" and "racial hierarchy" are quite different from those of North Americans.

Hale's theory centers on two concepts: "racial ambivalence" and "neoliberal multiculturalism." The former, to simplify, is the process by which ladinos reject overt forms of racism, defend ladino privilege, and claim that Mayas are responsible for their own subordination. The latter concept can be defined as a political-economic agenda, which grants individual and collective forms of cultural rights, while reaffirming political and economic hierarchies. As Hale explains, "Neoliberal multiculturalism holds out the promise of both equality and cultural recognition, but grants only the latter, and then promotes intercultural exchange anyway" (p. 38). Ladinos and Mayas alike live within this framework. Hale focuses his attention on how ladinos interpret their places within a changing Guatemalan social milieu that has granted public Maya cultural expression more freedom and even—however slightly—expanded Mayas political and economic horizons. These changes have precipitated a range of ladino responses and strategies to preserve their real and perceived privileges.

In *Más que un Indio*, Hale also poses challenges to ethnographers in general. What constitutes activist-oriented scholarship and how might ethnographers best situate their results for use and critical reflection by the persons they have studied? Scholars who are trying to conduct ethnographic research and write about it in socially productive ways will appreciate Hale's candor about his struggles to do this. In this respect, the book can serve Mayas themselves by presenting ladinos' perspectives and pointing to why their movement to advance their social, political, and economic agendas has stalled. Also, it can provide a vehicle for ladinos to reflect critically on their places in Guatemalan society. To help accomplish this, Hale has published a version of the book in Spanish in Guatemala.

Despite efforts to facilitate dialogue and Hale's hope for equality, *Más que un Indio* illustrates just how divided Guatemala is. This situation parallels other regions of the world where ethnic and racial differences are correlated to differential access to political and economic power. Hale offers a way to understand this dynamic through his concept of the "political imaginary," which allows for the consideration of how people think and feel about their places in society in relation to their actual material conditions.

Mayanist scholars may have a difficult time reading this book. Although our research focuses on Mayas, we must navigate ladino social, economic, and political terrains. Hale's book will confirm some of our worst suspicions

about ladinos' attitudes about Mayas and show us how little many Mayanists know about ladinos. For those like myself, who are bound by family commitments to ladinos but study Mayas, *Más que un Indio* offers a place for us to better understand those we care about but with whom we are ideologically split. Another reason for discomfort is Hale's representation of Mayas and some of his cross-racial analyses. Mayas can come off as ethnographically flat, and some of Hale's interpretations of Maya behavior as wrong. Despite this, much is gained, even if the analysis is not as equal as Hale originally intended. Scholars working in cross-ethnic and racial contexts should rise to his challenge to evenly portray these interactions in rich, ethnographic detail. It is a difficult proposition because our subjects position us vis-à-vis themselves and others in ways that limit our cross-ethnic and racial analyses.

The Cell Phone: An Anthropology of Communication. Heather A. Horst and Daniel Miller. New York: Berg, 2006. 212 pp.

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Studies of communication technologies often breathlessly describe how they will function either as general panaceas or as impediments to face-to-face interaction. This insightful book falls into neither trap and, instead, provides a theoretically grounded understanding of how cell phones are actually used among low-income Jamaicans. The authors provide useful theoretical concepts for situating the study of cell phone use not only in Jamaica but also within a framework that other scholars may draw on for comparison. Notably, they consider the larger communicative, physical, economic, and cultural contexts in which cell phone conversations occur. The result is an ethnography that follows in the tradition of anthropological work while pushing its boundaries by making the object of study communication through tool use within a contemporary, policy-driven context.

The book begins with several key chapters that detail the economic and governmental infrastructure that helped create the current climate for cell phone use and the moral attitudes that Jamaicans ascribe to cell phone service providers. The authors provide ethnographic detail about the two sites they studied: one rural and one urban. They include an in-depth description of what cell phones mean to Jamaicans, who perceive them as individualized, multipurpose, "technology centers" that facilitate access to economic resources and emotional connections to other people. Chapters 5 through 7 form the heart of the book's anthropology of communication as the authors analyze the particular way low-income Jamaicans use the cell phone to intensify relationships and vigilantly maintain social networks. Calls may be concerned with making financial, romantic, spiritual, and emotional connections.

The authors use the term *link-up* to characterize a form of networking in which people routinely make cell phone

calls to keep lines of communication open with other people. Characterized by their frequency and short duration, link-up calls often affirm relationships that may provide crucial future resources. For example, a woman who needs money for her children's education may scroll through her cell phone directory and contact friends or relatives within or outside of Jamaica, if she has successfully maintained relationships through linking-up. People may assist others who call them, including those who will not likely return the favor directly in the future. The authors illustrate how these practices problematize the temptation to see these relationships as enacting generalized reciprocity. Maintaining cell phone-mediated links does not mean that people give with the expectation that the same individual will one day return similarly valued favors.

The authors successfully tackle contradictions that are important for devising policies. For instance, they explain why cell phone use is so popular even though it is more expensive than using landlines. The answer lies in economic and cultural circumstances in which the cell phone facilitates expressing a particularly Jamaican form of individuality. In certain areas, landlines were never provided. Within households with landlines, multiuser bills could create suspicion and divisiveness. Further, landline telephones do not provide ready access to private, personalized directories of people who may provide assistance such as by defraying communication expenses when the receiver can pay for the call itself. Evaluated within a larger communicative framework, the cell phone becomes a crucial tool for these Jamaicans' everyday survival strategies.

The book is useful for courses in cultural anthropology, technology and media studies, economic anthropology, and development studies at upper undergraduate and graduate levels. Each chapter ends with a well-summarized conclusion to reinforce theoretical concepts that challenge previous scholarship in these fields. Scholars in linguistic anthropology may be disappointed that transcripts of phone conversations are not provided. The authors state that most calls are short and involve "little more than a brief exchange of pleasantries." Although it is methodologically difficult to record and obtain permission to analyze spontaneous, private phone conversations, the inclusion of such material might have provided useful points of comparison for cell phone use in other cultural contexts, as well as communicative comparison to other media. Excerpts would also have strengthened their contention that communication as facilitated by the cell phone in Jamaica should be studied as a subject in its own right.

The Cell Phone provides a considered critique of current economic policy models and advocates using new models based on people's capabilities rather than consumption patterns or infrastructurally unsupported entrepreneurship. The last section may leave readers wishing that the authors had expanded on their policy recommendations for poverty alleviation in Jamaica. The complexity of poverty and the uncertain impact of technology illustrate why studies such as this are crucial for informing policy makers about the

challenges and contradictions that complicate economic improvement.

Skin: A Natural History. Nina G. Jablonsky. Berkeley: University of California Press, 2006. 266 pp.

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Our skin provides both our connection to, and protection from, the outside world. It performs a multitude of functions: from thermoregulation to sensation; to protection from thermal, mechanical, or microbial insult and from ultraviolet radiation (UVR); to acting as the largest endocrine organ in the body. Layered on top of its biological functions are all the social functions of skin: humans around the world decorate, pierce, and otherwise modify their skin to express a variety of nuanced meanings and convey messages to others. All of this and much more are covered in the brief, highly readable, and wonderfully informative *Skin: A Natural History* by Nina G. Jablonski, a book that will be of interest to anthropologists of all stripes.

Jablonski's book is organized into an introduction followed by 11 short, easy-to-read chapters. The introduction provides essential background information and lays out the subsequent structure of the book. Chapters 1 and 2 discuss the anatomy (structure), physiology (function), and evolutionary history of skin. Chapter 3 deals with the evolution of human skin and, more specifically, its adaptive evaporative cooling apparatus, while chapters 4, 5, and 6 provide a discussion of the role of UVR in skin physiology and the evolution of human skin color differences. Chapter 7 examines the critical importance of interindividual touch in social animals such as primates, while chapter 8 shows how revealing skin can be with regard to an individual's health, emotional state, or sexual receptivity. Chapter 9 relates how our skin responds to a whole host of environmental insults and to the ravages of time, while the final two chapters outline the ways in which humans modify their skin to convey a personal or social message and to provide a glimpse into future technologies related to skin. I advise readers to keep a bookmark in the notes section. I made the mistake of ignoring the endnotes until halfway through the first chapter, only then to realize the wealth of information contained therein.

I teach a class on human adaptation in which we cover the topic of human skin color, and, therefore, I am familiar with the author's primary research in this area. What I found delightfully surprising about this book, however, were all the things that I did not know. For example, I had not heard that a key genetic difference between humans and chimpanzees involves "a cluster of functionally related genes that regulate the differentiation of the epidermis and contribute to coding the proteins that make up the keratin-rich layer of the skin" (p. 14): it now appears that William Montagna was correct when he surmised that a more effective epidermal barrier distinguishes humans from our ape cousins (p. 183). Likewise, I did not know that hippos lack

sweat glands but, nonetheless, lose water from their skin "at a rate higher than that of any other mammal" (p. 35) through a process known as transepidermal water loss, nor was I aware of vitamin D's important role in inhibiting cancer cell growth (p. 64).

From a cultural anthropological perspective, there is much to like about this book. Perhaps most relevant is an updated discussion in chapter 7 of Ashley Montagu's contrasting of "contact" (i.e., touching) and "noncontact" (i.e., nontouching) cultures, of which the United States tends to be a mostly touch-averse society, often with dire social consequences. Also of interest is the discussion (ch. 10) of the cultural construction of skin and its role as an individual's own expressive canvas.

There are only a few points of disagreement I have with the author's work that deal with the human paleontological and archaeological records. For example, Jablonski argues (p. 181) that the earliest unequivocal member of the human lineage is *Australopithecus anamensis* at 4.4 m.y.a. First, the date for this species is incorrect (its earliest members date to 4.2 m.y.a.), and second, few dispute the hominin status of the genus *Ardipithecus*, which dates to 4.4 m.y.a. (and considerably earlier). Jablonski also argues that the earliest evidence for clothing is the presence of awls and decorative beads at circa 40 k.y.a. (pp. 42, 211). If, however, as Jablonski maintains, the hominins who left Africa circa 1.8 m.y.a. were relatively hairless, then their descendents living in midlatitude Eurasia at circa 800 k.y.a. were almost certainly wearing some form of clothing to survive in such a seasonally cold environment. However, these are but minor details that do not detract from the overall quality of this book, which is a fun read for the professional anthropologist and interested layperson alike.

Horse and Buggy Mennonites: Hoofbeats of Humility in a Postmodern World. Donald B. Kraybill and James P. Hurd. University Park: Pennsylvania State University Press, 2006. 362 pp.

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As a publication of the Pennsylvania German Society, *Horse and Buggy Mennonites* contributes significantly to the history and culture of Anabaptist sects in North America. Sociologist Donald Kraybill, a widely recognized authority on Amish and Mennonite sects in the United States, combines his insights and methods with those of anthropologist James Hurd. Together, they produce a tour de force methodological study of one little-known Old Order Mennonite sect, the Wengers.

This well-written, well-supported study is a model for further anthropological studies of religious sects. It includes detailed analysis of the role of the redemptive community, religious values of humility, redemptive rituals, and moral authority. It should be of interest to the anthropology of North America, culture, and agriculture and the study of work, consciousness, religion, and material culture.

The Horse and Buggy Mennonites presents detailed ethnographic descriptions of the material and ideological dimensions of the Wenger rural farming culture. The study spanned ten years of field work for two scholars who engaged in participant-observation and collection of church histories, interviews, and photographs of Wenger life. It contains a nearly 100-page appendix. In this primarily interpretive study, Kraybill and Hurd present the historical controversies that preceded and followed the emergence of the Wenger society in 1927. Although these controversies have sometimes been painful and resulted in splits or defections, the book points out that those discerning decisions regarding the *Ordnung*, or rules of community life, are ongoing community processes in the daily lives of separatists who seek to maintain a distinctive unified community identity apart from the threats of the postmodern world. Kraybill and Hurd interpret with great clarity the religious values that explain the choices the Wengers make to maintain their concrete social reality and religious identity.

In a world where many religious sects respond to postmodern individualism and fragmentation of identity and authority with outward expressions of violence, the Anabaptist response has been to turn inward to the nonviolent local community for their redemption. Kraybill and Hurd interpret, from the perspective of the Wenger Old Order Mennonites, the role of the religious community in guaranteeing redemption through rituals of intensification. This book broadens understanding of religious rituals of intensification to include all dimensions of daily life from socialization of youth and the use of a dialect to community participation in building a barn, going beyond those rituals conducted in the church house.

At the center of these rituals is the core value of humility, in which individuals submit to the authority of the group in return for guarantees of material and emotional security. By surrendering to the religious authority of the church, individuals give up pride and assertive choices for peace and salvation. This examination of humility, a human trait seldom examined in a cultural context, is critical to understanding how Wenger redemptive community rituals sustain a unique identity. Kraybill and Hurd assert that humility is a necessary and very possibly sufficient trait in preserving the Wenger way of life.

This comparative study places the Wengers in the spectrum of Anabaptist groups to explain the differences between Mennonites and Amish sects, as well as the differences between Old Order and New Order communities within each of these sects. Through systematic comparison of material and ideological variables, Kraybill and Hurd locate the Wengers in the spectrum, but by no means linear continuum, of Amish and Mennonite sects in structural relations to each other and the outside world. This ambitious study is highly successful in this regard, enabling Kraybill and Hurd to interpret the Wenger's unique balance of individual and collective values within shifting boundaries of moral authority in the postmodern world.

Kraybill and Hurd assert that their comparisons serve only to clarify their interpretations and are not intended to produce generalizations of a theoretical sort. Generalizations are difficult to make, they argue, among sects whose perspectives are highly ethnocentric in generating subjective meaning and identity. In this caveat, they may be practicing too much humility in the scholarly community. By showing how the Wengers challenge the threats of shifting moral boundaries, Kraybill and Hurd present a cultural critique of postmodern society. The separation of moral authority from the local community in the historical processes of modernity created the Wenger's unique Anabaptist separatist response. The abstract reality of moral authority in the postmodern world sustains it. The questions addressed by Kraybill and Hurd regarding the relationship between the individual and truth will be present in the next historical narrative beyond postmodernism, which may just may be a "return to the real."

The Weight of the Past: Living with History in Mahajanga, Madagascar. Michael J. Lambek. New York: Palgrave Macmillan, 2002. 319 pp.

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This book is an exemplary cultural account of historical labor and historical consciousness among Sakalava of northwest Madagascar. For Sakalava who subscribe to a cult that honors royal ancestors and their relics as the source of blessings and prosperity, meeting various obligations to these ancestors is "to bear history." "Bearing history" for Sakalava means not only "bearing a heavy load," "being under obligation," "enduring," and "suffering" but also "giving birth," "creating," "carrying forward," and "engaging in ethical activity." Michael J. Lambek argues that the Sakalava idiom of bearing implies that history is embodied and that historical consciousness is thus both "reproduced and left emergent" (p. 18).

In Durkheimian fashion, the labor of "bearing history" is distributed according to mechanical, organic, and particularist divisions. Sakalava common identity is forged mechanically through the annual gathering at the central shrine in Mahajanga to celebrate the Great Service in veneration of four key royal ancestors, and by parallel rituals held at lesser shrines throughout Northwest Madagascar. A descent-based functional and hierarchical distribution of tasks divides labor organically among living royal descendants, curators of royal relics and dwellings, shrine managers, and even junior ancestors spirits. The particularist division assigns individuals serving as tomb caretakers or spirit mediums to the labor of specific ancestors. For Lambek, such a division of labor serves to determine not only what one knows but also what one may claim to know and the authority with which one may communicate or not communicate such knowledge, thereby ensuring that "memory and knowledge are thus highly distributive" (p. 74).

In terms of Sakalava historicity, the distribution of memory and knowledge is also revealed in the way Sakalava spatialize time, or construct what Mikhail Bakhtin called a "chronotope." This chronotope emerges from the construction and reproduction of sacred places as well as from ancestral spirits' possession of their mediums. The building of shrines to contain the ancestral relics that historically legitimated the rule of Sakalava monarchs is informed by several processes: "rooting in the past; centering, enclosing, and encircling; and progressive hardening and preservation" (p. 28). The temporalizing of sacred space is made manifest by the fact that royal remains are not so much buried as they are "rooted" in the ground, the annual Great Service to venerate royal ancestors is regarded not as an eternal return but as "growth," and entry into shrines is temporally controlled. Royal remains are centered through a succession of enclosures that produce more sacred and dangerous spaces the closer their proximity to the relics. Moving toward the center of a shrine and, thus, toward the royal remains that are hardened and preserved is to move "back in time." However, shrine architecture determines that moving toward the center also means crossing thresholds and passing through doorways that offer increasingly restricted access to the relics. Lambek likens the Sakalava chronotope to a maze where routes to the center are never direct, each turn reveals a new vista while obscuring what one has previously passed through, and crossing a threshold may entail both remembering and forgetting.

Mediums currently bear the greatest burden of Sakalava history by, for example, suffering physically from the trance experience, sharing the observance of taboos that are imposed on royalty, recruiting clients as donors to royal service, endeavoring to serve the competing demands of royal ancestors and living royals, and inscribing ancestral history in the register of bodily performance (p. 218). This inscription links generations of deceased royalty to each other and to their present actions, which are enabled or constrained by certain contexts, occasions, and spaces. Ancestral spirits from different epochs express temporally informed alternate points of view as they converse with clients or disagree with their mediums. Spirit performances bring forth history into the present, but because they do so in terms of multiple voices emerging from temporally discrete but juxtaposed epochs, these performances reveal what Kenneth Burke identified as the ironic perspective. Irony, in turn, enables the spirits' interlocutors to reflect on the historical condition. It is the creativity engaged by the interaction of these spirits that persuades Lambek that "mimesis" is not an apt descriptor of Sakalava spirit possession, but that Aristotle's analytic concept of "poiesis" (creative production) is. Moreover, Sakalava spirit possession and the conduct of spirit mediums—who not only support but serve as models for ethical royal behavior—exemplify Aristotle's concept of "phronesis" (the ethical aspect of action). This magnificent ethnography is an innovative and major contribution to the study of historical consciousness and will be invaluable for courses on the anthropol-

ogy of religion, ritual, ethnographic writing, and historical consciousness.

Discovering North American Rock Art. Lawrence L. Loendorf, Christopher Chippindale, and David S. Whitley, eds. Tucson: University of Arizona Press, 2005. 334 pp.

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Rock art research has had an uneven relationship with anthropology for more than a century. Despite a strong history of ethnographic and archaeological research and a recent avalanche of high-quality publications, rock art research is still often viewed as a curiosity or, at worst, as part of the lunatic fringe. This volume, edited by three well-respected and prolific researchers, provides the historic and intellectual context that explains the origins and errors of this misunderstanding.

The volume is divided into two sections: the first examines the histories of rock art research by geographic areas of North America, while the latter addresses broader issues that face the field today. The histories in part 1 range from Michael A. Klassen's fascinating examination of changing attitudes toward Writing-on-Stone in Alberta to Todd W. Bostwick's encyclopedic review of the Southwest. Although the editors admit to some bias toward the West in their coverage, histories of cave art in the southeast (Jan F. Simek and Alan Cressler) and of rock art along the central Mississippi River valley (Carol Diaz-Granado and James R. Duncan) provide welcome balance. Both chapters also effectively highlight the significant contributions made by avocationalists, a topic that resurfaces in the second portion of the book (William D. Hyder and Lawrence Loendorf). Johannes H. N. Loubser's contribution focuses on the often-ignored cupules scattered across sites in the deep South.

Part 1 concludes with a chapter by David S. Whitley and Jean Clottes that contrasts the position of rock art research in Europe, where it is fully integrated into the archaeological mainstream, and in North America, where it is seen, at best, as a curious sideline to "real" archaeology. The stark contrast in these trajectories, they argue persuasively, is rooted in the specific histories of archaeology and the archaeological record itself on each continent. Their analysis is complemented nicely by Julie E. Francis's contribution, which opens part 2 with an overview of the intellectual histories within which rock art research in North America developed. In concert, these two chapters form the core of the volume, for both are well-written, carefully constructed arguments about how and why the histories of the discipline matter.

The remaining chapters in part 2 examine contemporary rock art research, discussing issues such as institutional sponsorship (James D. Keyser) and efforts to date pictographs (Marvin W. Rowe). These discussions embed the issues raised within their historical context, as in Kelley Hays-Gilpin's clear and balanced critique of how Euro-American researchers' interpretations have reinforced

Western gender stereotypes. Most importantly, the authors in this section suggest positive and often surprisingly simple ways to alleviate some of the problems they discuss. Hyder and Loendorf's chapter is a particularly good example, discussing the jealousies that sometimes arise between professionals and avocationalists; they include concrete suggestions for working with the strengths of both groups, maintaining professional standards while tapping into the experience of amateurs. Keyser, similarly, highlights the contributions of government archaeologists to rock art studies, then outlines the perils of continuing to rely on them alone. He argues that rock art research needs universities and funding agencies to provide opportunities for training and research. Rowe echoes this point in his chapter, accompanying his compilation of direct dates of pictographs in the Americas with a call to increase research in direct dating.

The volume includes some repetition in the history of early paradigms and occasionally neglects worthwhile topics, such as the debate regarding the propriety of *rock art* and related terminology. Despite these minor gaps, the contributions in this volume constitute an important survey of the trajectory of rock art research in North America. The most successful of the chapters offer detailed histories of research that shed light on past and present problems. This focus on the difficulties inherent in rock art research is promising, as it may signal the beginning of the end for some of the most damaging practices in rock art research: the uncritical application of universalizing assumptions and the friendly reluctance to critique others' research, which, as Hays-Gilpin discusses, leads to replication of stereotypes and acceptance of published research as dogma. That the critiques of the field are rounded out by the presentation of useful models and the discussion of potential solutions is even more promising. This book bodes well for the discipline; perhaps, after long struggles for acceptance, rock art research in North America is making its place as a mature and self-reflexive field.

Beauty Up!: Exploring Contemporary Japanese Body Aesthetics. Laura Miller. Berkeley: University of California Press. 2006. 256 pp.

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There is a pervasive belief that the concept of "beauty," as promoted by multinational corporations and the global media, is a rapid, pervasive, and insidious form of cultural imperialism. It has also been widely suggested that most, if not all, forms of recent body modifications are an articulation of a global social Darwinian beauty hierarchy. Author Laura Miller seeks to dispel this simplistic thinking. She brings up the example of the J-Pop Goth rocker, Gackt (*gakuto*), who is famous for his constantly changing hair and appearance (pp. 152–156). To the Western observer, his blue eyes and blond hair may seem a fruitless attempt to ape the West, but Miller notes that Gackt's inspiration is from anime, manga, and video games. Still, it is not that simple,

as Gackt's particular look is based on a character from one of the most famous Japanese manga: the "Rose of Versailles," which is based on the events of the French Revolution. Despite the positioning in European time and place, the manga's aesthetics are not necessarily Western; then again, one cannot assert that its origins are purely Japanese either. Nonetheless, in this book, the search for aesthetic purity or cultural origins is the aim of neither Miller nor the customers of the beauty spas and diet products that she analyzes. The consumer's relentless quest for "Beauty Up" needs to be understood within the somatic and aesthetic semiotic systems of contemporary Japan rather than by imposing meanings from without or comparing the results against some abstract or "objective" notion of "beauty."

The Japanese world is changing. Miller notes that the current generation "want[s] to have bodies different than their parents" and that "bod[ies] are often seen by young Japanese as nothing more than elements of the fashion system" (p. 101). What does this mean? Where does this desire for new bodies come from? In this well-illustrated volume, Miller seeks to engage conversations on modernity and identifies hybrid bodies, created in the Japanese milieu, to examine these new forms of consumption, identification, and technology.

Japan is a good site in which to examine these issues. The long history of domestic cosmetic production and consumption (e.g., the well-known Shiseido company was started in 1879), an extensive colonial history, and the elaborate consumption habits of late capitalism all allow for interesting comparisons. Miller asserts that much has changed. The difference now is the impact of the media with its relentless critiques of bodies and promotions of new technologies. Nevertheless, Miller does not shy away from openly insisting that the vast majority of the services and products in this \$4 billion industry are worthless and pushed by dishonest hucksters who prey on the anxieties created by this modern world.

Miller notes how beauty assertions spring from two sources: (1) native folk models, which are adapted to aid in selling the latest claptrap invention, and (2) the "patina" of science, whereby packages are adorned with scientific claims, images of scientists, or bell-and-whistles added to dress-up old ideas. Similarly, promoters of spas, cosmetics, and diets package their products in a variety of dressings, including ancient Japan, the Orientalist's Egypt, and the "French Antique."

Although some chapters have been previously published, much is new, and as a whole the book contains insightful discussions and observations. For example, Miller shows how "beauty" has been reconfigured as a form of social manners rather than as vain self-involvement. Similarly, Miller looks at the extensive discourse and pervasive practice of body hair removal for both women and men. Her examination of the national and global "Language of Esute" shows how semiotic systems of beauty are at once both particular to Japan and informed by global trends.

Zvelebil, Marek

2006 Mobility, Contact, and Exchange in the Baltic Sea Basin, 6000–2000 B.C. *Journal of Anthropological Archaeology* 25:178–192.

The Empire of Love: Towards a Theory of Intimacy, Genealogy, and Carnality. Elizabeth Povinelli. Durham, NC: Duke University Press, 2006. 285 pp.

SONIA RYANG

University of Iowa

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KEVIN J. VAUGHN

Purdue University

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The bulk of the book is found in chapter 5, a description and interpretation of the major themes in Nasca iconography. The chapter is 130 pages long (making up more than half the length of the book) with 324 figures; it is a tour de force of the 40 major motifs found in Nasca art. Any researcher of Nasca ceramic iconography is struck immediately by the complexity of the ancient art. Proulx's categorization of these major motifs into 325 precise subvarieties is a testament to this complexity. Each subvariety is given a descriptive name that can be somewhat cumbersome (e.g., "The Spectacled Proliferous Anthropomorphic Mythical Being with Full Signifier" and "Mythical Spotted Cat with Anthropomorphic Mythical Being Features") and a code (e.g., AMB-6-A-2 and SC-6, respectively), and is described including the elements of the form, the phases in which each are found, and an interpretation of the major themes. The interpretation of each major theme (e.g., the Killer Whale and the "Horrible Bird") is very helpful. Each subvariety is illustrated with a full description. The illustrations are spectacular, but I was a bit disappointed to find that they were not labeled with the phase to which each dates, as this would have been valuable.

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K. JILL FLEURIET

University of Texas at San Antonio

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The structure of the volume reflects this refocusing of the discipline's histories. The first section, comprising 11 chapters, is organized by country. Each traces intellectual traditions influencing medical anthropology in their country of origin, training, or current employment. Most also include sections on professional training and the nature and types of interdisciplinary relationships in research and application. The second part of the book is composed of two chapters on cross-cutting thematic issues, gender, and politics that illustrate the bidirectional flow of intellectual traditions between North America and Western Europe. The concluding chapter assesses underlying epistemological themes and challenges.

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Zvelebil, Marek

2006 Mobility, Contact, and Exchange in the Baltic Sea Basin, 6000–2000 B.C. *Journal of Anthropological Archaeology* 25:178–192.

The Empire of Love: Towards a Theory of Intimacy, Genealogy, and Carnality. Elizabeth Povinelli. Durham, NC: Duke University Press, 2006. 285 pp.

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gender and health in the United States and Canada, and D. Fassin considers recent French research in life politics. The concluding chapter is written by Margaret Lock.

For the graduate student or professional medical anthropologist, this is a fascinating exploration of how a discipline is shaped and represented. Distinct developmental trajectories in each country are nonetheless united by a common set of influences. Most of the volume's authors critically assess how theories, methods, and research questions are inextricably linked to historical and current Western hegemonies in international politics, medical industries, and the academy itself. They strategize on how these connections can be creatively capitalized on to document and reduce suffering.

One of tensions creatively explored by most contributors is between the very real suffering medical anthropologists witness and the recognition that many illness boundaries and expressions have to be socially constructed to be recognized and given meaning. Fassin's capstone analysis of childhood lead poisoning, immigration, and politics in France illustrates how social constructions of illness and interventions are wedded to political agendas and ethnic and economic hegemonies. This admirably conceived argument is both constructivist and materialist. It foreshadows Lock's call in the concluding chapter for an engaged medical anthropology that presumes "the biological and social are co-produced and dialectically reproduced" (p. 277).

The volume is also a particularly fascinating study in the politics of representation among medical anthropologists. Many, such as Fainzang (France) and Leibing (Brazil), decenter the United States by explaining how "medical anthropology" is too singular and industry specific for the work they do in their respective countries. Most—particularly Comelles, Perdiguerro, and Martinez-Hernandez in Spain and Bibeau, Graham, Fleising, and Masse in Canada—define themselves in opposition to the culturalism of U.S. medical anthropologies past, which is duly noted by Castro and Farmer in their chapter on the United States.

One of the consequences of a book whose goal is to decenter and deconstruct a field is that the reader is apt to ask the same questions about the processes that produced the volume itself. Would other undisputed leaders in medical anthropology in the same countries similarly respond to the editors' charge? Where do anthropologists in other countries, or even other continents, fit in: for example, those in China, India, Australia, and South America? By raising such fruitful topics for discussion, the book is a welcome complement to dialogues within professional circles as well as graduate seminars, which are increasingly analyzing the practice of medical anthropologies.

Menopause: A Biocultural Perspective. Lynnette Leidy Sievert. New Brunswick, NJ: Rutgers University Press, 2006. 220 pp.

YEWOUBDAR BEYENE

University of California, San Francisco

In recent years, various researchers and authors who are determined more than ever to provide more realistic experiences of menopause and nonpathological views of midlife women have scrutinized the Western cultural myths of menopause. The existing biomedical model of menopause and epidemiological data demonstrate various discrepancies between women's perceptions and experiences of menopause. Not only are the meanings associated with menopause historically and culturally contingent but also cross-cultural data on physiological responses to menopause indicate a wide range of variation among women living in different cultural settings.

In this book, Lynette Leidy Sievert offers a refreshing and deeply textured view of menopause based on a broader understanding of women's experiences of menopause by drawing examples from various sources of comparative work; her own case studies from Puebla, Mexico, and western Massachusetts; and data from Slovenia, Paraguay, and Hawaii. The book is divided into seven chapters that are thematically linked, addresses pertinent topics in menopausal research, and provides excellent examples of how biocultural and lifespan approaches may offer to researchers as tools to untangle the cultural and biological aspects of menopause.

The chapters consist of definitions of *menopause* and discussions of biocultural perspective and lifestyle approach as analytical tools in menopausal research; surveys of past studies of menopause, including discussion of hysterectomies, chemotherapy, and other medical procedures and treatments that stop menstruation prematurely; and methodologies that are currently employed to measure symptom frequencies. The book also explores recent advances in technology, including postmenopausal birth. By employing an evolutionary and cross-cultural understanding of menopause, and the influence of biomedicine, this book teases apart cultural and biological factors that influence the variation on age for onset of menopause and symptom presentations within and between cultures.

The multidisciplinary profiles of the work discussed in these chapters reflect the combined efforts of women from many disciplines to create an accurate picture of the midlife experience of women. Sievert presents ample evidence from cross-cultural and epidemiological nonclinical data in a number of strongly linked arguments that run throughout the book and makes a convincing case that the biocultural perspective and lifestyle approach would enable researchers to view menopause through a wider lens. Furthermore, the author suggests that biocultural perspective coupled with a lifestyle approach provide a toolkit of analysis for many different questions raised with regarding to the evolution of menopause, variation in age at menopause, and variation in symptoms associated with menopause. Cross-cultural comparisons facilitate the effort to demonstrate the cultural, ecological, social, political, and economic influences on the plasticity of women's menopausal experiences. Given such diverging realities, Sievert points out that attempts by medical professionals to define the "normal" occurrence of menopause, including its typical onset and symptoms,

may not be realistic. Furthermore, Sievert emphasizes that although some aspects of the biological process of reproduction seem to be less amenable to cultural influence; in all settings and societies, culture and biology are deeply intertwined and enmeshed across the lifespan.

Sievert also brings to our attention how the lack of comparability across study samples in cross-cultural menopausal data and methods has made it difficult to draw firm conclusion about population variation in age at menopause and symptom experiences during the menopause. She encourages researchers to be able to collect comparable data and pay attention to the cultural and biological particulars of the population under study.

This book is a terrific resource for both students and researchers who are engaged in studies of menopause as well as for women interested in understanding the menopausal transition. The book is well organized and readable and does an excellent job of explaining and describing issues surrounding menopause without medical or social science academic jargon. This significant book offers a thorough account of menopausal studies so far, brings new perspectives to the mainstream literature on the subject, and invites anthropologists and other researchers to consider compelling questions about menopause, its meanings, and its future.

Languages and Nations: The Dravidian Proof in Colonial Madras. Thomas R. Trautmann. Berkeley: University of California Press, 2006. 304 pp.

STEPHEN A. TYLER

Rice University

In *Languages and Nations*, Thomas Trautmann traces the social and intellectual history of the interaction between British and Indian linguistics scholars in Madras during the colonial period. He focuses largely on the almost forgotten work of the British administrator and linguist F. W. Ellis and his team of Indian linguists at the College of Fort St. George in Madras, whose efforts led to the development of the idea of the Dravidian family of languages. It is a sequel to Trautmann's earlier work in which he chronicled the conceptualization of the Indo-European family of languages by Sir William Jones at Calcutta in 1786.

Trautmann argues that the linking of languages and nations, which has its source in Genesis, became a major intellectual project in the 18th century and, ultimately, resulted in what he characterizes as an explosive growth of grammars and dictionaries. Trautmann's thesis is that this explosion, although fueled by the earlier work of Christian missionaries and the later needs of colonial administration, was largely the product of the conjunction of European and Indian traditions of language analysis.

The Indian tradition included not only the now famous Sanskrit grammar of Panini (400 B.C.E.) but also the equally important but less well-known work of the Tamil grammarian Tolkappiyar (100 B.C.E.). Technical grammatical analysis in India was thus an already sophisticated intellectual program long before the British arrived. Spurred in part by

the discovery and translation of these grammars and aided by the technique of word list comparison, Jones and others developed the idea of a connection between language and nation. Linguistics and ethnology were joined in a synthesis of history and comparison.

This synthesis is clearly evident in the work of Ellis and his circle in Madras. Working with a team of Tamil teachers and other British administrators, Ellis saw that the major Dravidian languages of South India possessed a common grammatical structure and a common vocabulary, both of which were different from the structure and vocabulary of the Indo-European languages of North India. Inspired by this vision of a Dravidian family of languages, Ellis proposed that the government sponsor the writing of grammars and dictionaries of the major Dravidian languages. In 1816 Ellis wrote an introduction to A. D. Campbell's *A Grammar of the Teloogoo Language* (1816). In a brief 31 pages Ellis demonstrated that Telugu and Sanskrit roots were different, and that Telugu shared many roots with other South Indian languages, notably Tamil and Kannada. This part of the so-called Dravidian Proof was set forth in columns that compared the roots and words of these languages, and that demonstrated their common phonological structure and meaning. The third part of the proof was a syntactic comparison that illustrated similarities among Telugu, Kannada, and Tamil, and that indicated their structural contrast with Sanskrit.

A Telugu dictionary compiled by M. Venkayya, a Telugu scholar, facilitated Ellis's proof because it provided much of the technical analysis of word categories that illustrated the contrast between Sanskrit and Telugu. This contrast was an important part of the Dravidian Proof because the Calcutta linguists at the College of Fort William had argued that all the important words and expressions of South Indian languages could be derived from Sanskrit. The languages of the South were different only because they had become corrupt and had incorporated "country" terms and expressions that lacked proper Sanskrit origins.

Ellis's idea of a Dravidian family of languages was the structural principle behind the organization of the College of St. George. His "Dravidian Proof" was a critique of the Calcutta school and part of his argument for teaching Tamil and Telugu, rather than Persian and Hindustani, to British candidates for positions in the East India Company. To this end, Ellis and a committee promoted the idea for the college press to publish grammars and dictionaries that could be used in the instruction of civil servants. As Trautmann makes clear, the structure of the college at Fort St. George was a direct outcome of the Dravidian proof, and one of its consequences was the replacement of Persian and Hindustani as the main languages of governance.

The courses at the college consisted of an obligatory curriculum that included the study of different scripts, Tamil and Sanskrit grammars, and variations in the grammars of Telugu, Malayalam, and Kannada. These courses were followed by optional instruction in Oriental literature and Hindu and Muslim law.

Trautmann's account of the "Dravidian Proof" is thoroughly contextualized within the historical details of colonial administration and contemporary issues of "Orientalism." His work is an account of the relations between native savants and British scholars in a kind of "East meets West" story far more nuanced and revealing than anything imagined in Edward Said's misrepresentation of "Orientalism" (1978).

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Tarzan Was an Eco-Tourist...and Other Tales in the Anthropology of Adventure. Luis A. Vivanco and Robert J. Gordon, eds. New York: Berghahn, 2006. 320 pp.

CARLA GUERRÓN-MONTERO

University of Delaware

Edward Bruner reminds us that to advance traveling theory, we need more detailed studies of all patterns of travel (2004:101). This collection responds by focusing on the neglected topic of adventure travel from an anthropological perspective. The volume includes an introduction and 15 chapters organized in five sections. Robert J. Gordon's introduction frames the chapters around Georg Simmel's analysis of adventure, which is addressed in all the chapters. Gordon asserts that in spite of its ubiquitous nature in today's world, adventure has not been thoroughly studied, and its intrinsic association with anthropology has remained marginal in anthropological studies of travel and tourism. Gordon distinguishes adventure travel from tourism and pilgrimages: adventure travel incorporates risks, uncertainty, and interaction with strangers as central components of the experience. In addition, Tarzan is examined as an icon that "both transcends and highlights the specificity of adventure's historical meanings" (p. 9).

In part 1, Aram A. Yengoyan compares the writings of Simmel and Sir James Frazier, noting that both theorists offer a nuanced perspective on the study of adventure in anthropology, in opposition to Claude Lévi-Strauss' negative views about adventure. Daniel Bradbud examines Edgar Rice Burroughs's *Tarzan of the Apes* (1973) and Simmel's essay "The Adventure" (1911). He argues that these (and other) writings are a reflection of late-19th- and early-20th-century upper-middle-class longings to escape the "crisis of modernity" in an urban, modern, industrialized world. Alan Barnard addresses 19th-century science fiction writings in connection with Tarzan. For Barnard, a serious study of early science fiction is particularly enlightening for anthropology because the genre contained terrestrial rather than extraterrestrial individuals; as such, it allows us to understand anthropological and popular attitudes toward the "other" during that period. David Napier explores how Tarzan could be

called the first popular modern "eco-tourist" because he embraces the characteristics of hero and advocate of the natural world that modern ecotourists espouse. Napier discusses the topic of heroism and the connections among the "self-indulgent entrapments" (p. 86) of adventure narrative—especially in the 19th century—in literature and its parallels with the heroic paradigm in politics, film, anthropology, and advocacy work.

In part 2, Lamont Lindstrom tells the story of a U.S. couple, Martin and Osa Johnson, who, in the early 20th century, "sold adventure" by promoting their pictures, films, and writings about their travels to the Hebrides and the Solomon Islands. Mass media allowed average citizens to vicariously experience encounters with "the other" like those of the Johnsons. Neil Whitehead focuses on Victor G. C. Norwood's use of ethnographic realism in his "Scion Jungle Novels" whose hero, Jacaré, is compared to Tarzan (1951a, 1951b, 1951c, 1952, 1953). Luis A. Vivanco describes the Australian "Crocodile Hunter," Steve Irwin, as representing nature-as-spectacle. Irwin's "macho flamboyance" (p. 126) is a more visible expression of a long-standing, if sometimes hidden, tendency to celebrate heroic adventure in environmental philosophy and activism.

In part 3, David L. R. Houston discusses mountain climbing from several perspectives: a search for risk, a desire to leave the ordinary, and a ritualistic process. Joy Logan notes that adventure (mountaineering) articulates national, regional, class, racial, and especially gender identity in Argentina. For Michael J. Sheridan and Jason J. Price, the Peace Corps are an example of adventure tourism because they link "extremes of commitment with extremes of emotional fulfillment" (p. 179), representing the mission as both moral and daring. Kathryn Mathers and Laura Hubbard draw on contemporary travel by U.S. citizens to Africa to analyze adventure as a love affair, an act of conquest and surrender, as described by Simmel. The perceptions in the United States that Africa is a dangerous place where modernity has failed and epidemics abound make the location an ideal place for the love affair.

In part 4, Gordon discusses how the members of the UN's peacekeeping Transitional Assistance Group (UNTAG) in Namibia lived the mission as an adventure within the framework of top-down development. Stephen Rubenstein critiques Simmel's view of adventures as successful only if they remind us of the tensions of everyday life. He also notes that adventures are not unique to modern Western culture and that the nature of conquest and surrender varies across cultures, as exemplified in Shuar Indian narratives of adventure.

Part 5 addresses the ambivalent reaction of anthropology to scholarship of adventure. Keally McBride examines the representation and normalization of military activity as spectacular adventure. This helps us understand how current U.S. foreign policy is sold to and bought by U.S. citizens. In the last chapter, David Stoll argues that anthropologists hesitate to dwell on particularly adverse field situations because they remind us of one of anthropology's

ethical dilemmas: we can and do escape the hardships in the field while our collaborators must continue to endure them.

An important strength of this collection is the ethnographic grounding of the chapters, which directly engage rich ethnographic understandings with Simmel's work. This book is a useful addition to the anthropological literature on travel and tourism, and it is a pleasurable adventure to read.

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The First Boat People. Steve Webb. New York: Cambridge University Press, 2006. 318 pp.

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In 2003, an expedition searching for evidence of early human migration from Asia to Australia stumbled across one of the most exciting paleoanthropological discoveries of the past 50 years: the diminutive human species, *Homo floresiensis*. Overshadowed by the public and academic focus on the "Hobbit", was the evidence the expedition had originally sought: the earliest evidence of seafaring. *The First Boat People*, explores the intriguing possibility that, if the Hobbit's *Homo erectus* ancestors sailed to Flores some 800-plus thousand years ago (k.y.a.), they could have eventually made it all the way to Australia.

While the title of this book suggests a detailed examination of the evolution of seafaring, the book's actual discussion of watercraft is relatively minimal; the clear focus of the book is the peopling of Australia. *The First Boat People* contains nine chapters and three comprehensive appendices. Each chapter is divided into headlined sections, serving to break an enormous amount of information into easily manageable units for the reader. The first four chapters discuss the migration of "erectines" (*Homo erectus*) out of Africa and into various parts of mainland Asia, Sunda (Thai and Malay Peninsulas and Indonesian archipelago), and, eventually, Sahul (New Guinea, Australia, and Tasmania). Chapter 5 examines the environmental conditions early migrants to Australia may have encountered on their arrival to the con-

tinental. Chapters 6 and 7 explore, in detail, the skeletal evidence for early Australian peoples and the interpretations drawn from the two contrasting morphologies seen among these early Australian hominids. Chapter 8 examines several time periods during which ecological conditions may have permitted migrations from Sunda to Australia. The concluding chapter discusses the greater implications of the peopling of Australia for the study of human evolution, and in particular to the support of the "Regional Continuity" model of modern human origins.

Over the course of *The First Boat People*, Webb introduces several rather unconventional ideas, including the assertion that the number of humans inhabiting Asia at the beginning of the Holocene was likely greater than 200 million. This number is considerably greater than the usual estimates of five to ten million humans living across the entire globe at the start of the Holocene (Cavalli-Sforza et al. 1993). Webb rejects the commonly held view that global population numbers remained extremely low until after the development of agriculture, approximately ten k.y.a., and proposes that population numbers began increasing steadily around 500 k.y.a. While we are inclined to agree that the world's population was likely greater than five million at the end of the Pleistocene, the ease with which Webb simply dismisses commonly recognized principles of population growth as "illogical" is disconcerting.

Webb also explores the possibility that humans may have been present on the Australian continent prior to 65 k.y.a., citing evidence of megafaunal extinctions, burned faunal remains, and even human remains that possibly date earlier than 65 k.y.a. (although no publications support this contention). Additionally, Webb even points to 150,000 year-old charcoal particles as possible evidence of manmade fires in Australia during this time period. In the end, Webb concludes, "I do not believe we can go on inventing excuses to dismiss all evidence however tenuous that points to people being in Australia before 65 ky ago" (p. 172). While Webb's argument is interesting, we believe that it is unlikely that many in the scientific community will be swayed by Webb's evidence.

In addition to supporting some fringe views on human evolution, we found other problems with this book, including errors in the midst of complex arguments, which at times made comprehension of the author's intentions difficult. One example of a particularly egregious error is found during the population growth discussion, in which the repeated substitution of "My" for "ky" inevitably results in an anatomically modern humans inhabiting Africa around two m.y.a., and *Homo erectus* thus migrating out of Africa during the rule of the Roman Empire.

However, despite these issues, the majority of this book is carefully considered and exceedingly thought provoking. Webb's exceptional comprehension of the ancient environment of Australia and Southeast Asia shines throughout the book and provides intriguing scenarios for possible migratory routes and timings. *The First Boat People* also presents a variety of demographic, ecological, and anatomical data

that may prove useful to many researchers (including two detailed appendices of cranial vault thickness data for the entire Willandra Lake Hominid collection).

Finally, Webb is correct that the discovery of *Homo floresiensis* should serve as a reminder that many new and exciting discoveries are yet to be made in the study of human evolution, and that some of the most important discoveries may just come from a small, underexplored continent named Australia.

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People and Forests: Yunnan Swidden Agriculture in Human-Ecological Perspective. Yin Shaoting. Magnus Fiskesko, trans. Kunming: Yunnan Education, 2001. 560 pp.

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This book is among only a few emerging English-language ethnographies based on long-term research by Chinese anthropologists. The author, Yin Shaoting, is professor and chair of the Department of Anthropology at Yunnan University, where he has specialized in researching the farming practices and material culture of minority cultures in Yunnan province. The Ford Foundation sponsored the English translation by Magnus Fiskesko and the subsequent publication of this volume.

Yin uses a human-ecological perspective to frame his work, with culture as mediator in the relationship between humans and nature. He finds fault with the earlier tradition of ethnology in China, which regarded swidden agriculture as a “primitive” holdover from a backward and discredited past, a perspective that blinded scholars to its historical and present significance. His own contemporary research seeks to answer questions that could not be adequately addressed by his predecessors: What is swidden agriculture? Why has it persisted and flourished until now? What changes and developments might be in store for the future?

The book begins with a brief overview of the history and methods of studying swidden agriculture among minority groups in southwestern China. Maps are in Chinese with separate English annotations according to a numbering system. Numerous photos illustrate various patterns of cultivation on steep, hilly terrain, as well as the material culture associated with swidden agriculture.

Part 1 focuses on the history, geographical distribution, and typology—for example, continuous versus noncontinuous cultivation, degree of importance to livelihood, and different types of fallow regimes—of swidden agriculture specifically in Yunnan. Part 2 presents case studies from the author’s field research on the cultivation techniques of representative groups—the Jingpo, Bulang, Wa, Jinuo, and Dulong—along with related aspects of their annual cycles of

production, land tenure, social organization, and religious practices.

Part 3 builds on the case studies to compare the adaptive advantages and disadvantages of different types of swidden systems using indicators such as rapidity of reseeding during fallow periods, weed and insect control, rate of recovery of vegetation, and soil fertility. He compares different types of cultivation and fallow regimes, cultivation techniques, settlement relocation patterns, and, more broadly, human ecological systems in mountains and valleys. Discussion of why people move or do not move from mountain areas to valley areas is particularly informative and theoretically interesting.

In part 4 Yin explores the dynamics of contemporary political and population pressure on swidden agriculture. Collectivization during the commune period in China produced numerous and severe disruptions in mountain ecology. The lesson from this experience is that “foreign” models based on “half-baked science” are not workable. He argues that development and survival of Yunnan’s highland peoples first and foremost depend on giving credit to the adaptive advantages of traditional ways of life.

The insights in this book are not startling, but they are well-researched and empirically and logically derived. The author realizes that swidden agriculture will continue to undergo rapid change because of external influences. To improve productivity, he recommends that the government invest in infrastructure for irrigation. At the same time he advocates for policies cognizant that this ancient and time-tested institution has an enduring value both in its inherent wisdom and in providing a foundation for agroforestry and sending “green” unprocessed forest products to market.

The amount of detail on material culture and clarity of expression in this book is impressive, but it is not intended to entertain the casual reader. It is primarily a reference work for specialists in highland agriculture or Chinese minority cultures, of which there are 25 represented in Yunnan. Since few anthropologists outside of China have studied the swidden agriculture of Yunnan, this book provides a one-of-a-kind source of information. As more translated works of increasingly cosmopolitan Chinese anthropologists become available in English, they are likely to be similarly in touch with broader issues outside of China and to make similarly worthwhile contributions to the discipline worldwide.

Out the Pits: Traders and Technology from Chicago to London. Caitlin Zaloom. Chicago: University of Chicago Press, 2006. 224 pp.

MELISSA FISHER

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Out of the Pits is a ground-breaking foray into the world of financial markets. Apprenticing herself to traders working in the Chicago Board of Trade (CBOT), Caitlin Zaloom uses ethnographic and anthropological tools to consider how shifts in the world’s leading financial exchanges are transforming the culture of markets, the labor of finance, and the

production of economic subjects. The result is a rich analytic account of the move from traditional open-cry style trading in the pits to digital trading on the screen. Rather than providing the usual master narrative of abrupt, grand structural change in late capitalism, the CBOT story is about the continuities as well as discontinuities in the forms and modes of financial exchange enacted on the trading floor over time. By providing a more subtle understanding of change in the everyday world of finance, this work promises to be an important contribution to the growing body of anthropological literature on finance.

Zaloom begins the book with a discussion of global financial markets, a discussion that has primarily been dominated by two central lines of thought. On the one hand, markets are viewed as sites of continual, rapid flows of capital. On the other hand, they are seen as zones of rational action populated by self-interested subjects whose sole goal is profit making. In either case, the market is portrayed as separate and apart from society and culture. People and any social interactions they might have with one another either disappear in the massive waves of mobile capital or are sutured from one another in the pursuit of profit (pp. 1–4). Disavowing both popular images, Zaloom argues that on closer examination financial markets are economic spaces in which traders, managers, and designers must continually work with “the materials of the market—technology, architecture, habits, routines—to create” the conditions of rationalized action and the disciplinary production of calculating subjects (p. 4).

The project of producing spaces (material or digital) and techniques of rationality is, as Zaloom reveals, never entirely successfully. The first part of the book addresses the early history of the CBOT. Drawing largely on archives, it shows how CBOT members and leaders debated over the architectural style of buildings, the shape of trading pits, and the placement of technologies such as the telegraph within the pits to create the material form of a market that would work efficiently and rationally. And it reveals that in spite of their very best efforts, the men were unable to fully do so. Traders continually “labored to create liquidity with their voices and bodies in the pit” (p. 55).

Having established the multiple ways in which market designers and participants attempted from the very start to embed the processes of rationalization in open-cry trading, Zaloom deftly moves onto the central ethnographic story: the contemporary struggle over the move to on-line trading. Whereas the designers of new electronic systems sought to “purify” prices of social connotation—to disentangle numbers from social interactions in the pit—traders attempted to maintain some of open-pit bodily practices. New information technology of electronic trading sought to cut them off from the overpowering sensory environment that habitually informed their decisions. However, as Zaloom reveals, “traders try to gain contextual clues from other traders by calling across dividers that separate them, offering interpretations of market movements” (p. 151).

In addition to exposing ongoing struggles over the rationalization processes in trading, Zaloom also draws attention to the production of market participants. Indeed, much of the latter part of the book considers the kinds of disciplines necessary to produce competent, calculating economic actors. For example, Zaloom examines how calculation becomes part of a trader’s ethos that requires “separating their actions on the trading floor from their lives outside” (p. 129). Rational behavior is not “innate” as economist models predict. Rather, it is produced in everyday practice on the trading floor (p. 139). Notably, while the book provides important insight into the strain traders undertake to maintain the ethic principle of discipline at work, the ways such practices affect financier’s lives outside the market—for example, their family lives and civic obligations—is underexplored.

The book concludes by outlining “five elementary forms of financial life: space, technology, social composition, selves, and representation. . . . [And] what an anthropology of finance and exchange helps us learn about them and, in turn, about the culture of markets” (p. 166). Such a discussion moves the burgeoning anthropological literature on global markets a considerable way. It should also provide insight into how financial markets work to members of the business community at large.



Commentaries

Response to Ember and Ember's "Climate, Econiche, and Sexuality: Influences on Sonority in Language"

ROBERT L. MUNROE
JOHN G. FOUGHT

Carol Ember and Melvin Ember (AA 109[1]:180–185) have shown in their recent report that the search for extralinguistic causes for purely linguistic phenomena appears to be paying off. They have demonstrated, with a world sample of languages, that such environmental features as climate, plant cover, and mountainous terrain all help to predict mean sonority levels in speech. Here we want not to challenge the Embers' findings but, instead, to add a new perspective.

We found in previous research (Fought et al. 2004) that the autochthonous languages of tropical and subtropical areas exhibited a high proportion of more sonorous phonetic units, compared with those in temperate and frigid zones. This, we argued, was an adaptive outcome shaped by the frequency of outdoor oral communication in warm climates, and by the accompanying transmittal of messages over distances greater than in the typical indoor case of proximity between speaker and hearer in colder climates.

Although our results were robust, the Embers have correctly noted that a number of warm-climate languages manifested relatively low sonority scores and were thus exceptions to the general findings. We have attempted to address the issue by considering the following question: What other element besides high sonority might raise the level of communicative efficiency? We have taken as a cue Peter Trudgill's point that "the longer a word is, the more difficult it will be, other things being equal, to remember" (2004:714). The principle should also hold for sound perception: the longer the words are in a given communication, the more difficult they will be to perceive accurately.¹ Thus, *ceteris paribus*, comprehension should be optimized when audible words are shorter. Our word lists consist almost exclusively of basic nouns, verbs, and adjectives, and, as such, they would be typical as items of choice in the conveyance of messages. We can inquire as to whether the words are in fact shorter in the low-sonority, warm-climate languages than they are elsewhere.

Word length can be measured by calculating the number of phonetic segments per word, and we carried out this calculation.² In our world sample, there were 39 warm-climate languages, of which 25 were above the median for sonority (or "high") and 14, the exceptions, were below the median (or "low").³ The mean number of segments per word for the low-sonority cases was 5.00 versus 5.64 for the high-sonority cases, with $t(37) = -.2.12$, $p = .02$, one tail. Moreover, the mean of 5.00 phonetic segments per word for the low-sonority cases in warm-climate areas was also significantly below the corresponding mean of 6.35 segments for the remaining 21 sample languages that were located in the temperate and cold zones, with $t(33) = -2.02$, $p = .05$, two tails. The results suggest that while sonority levels remain primary in promoting effective audibility, and that while they are sufficient when at a high level, there is often an important contribution made by the length of phonetic segments.

An analogue to our results is found in the loud, short bursts characteristic of tropical birdsong (Marten et al. 1977). This and other ethological studies that we cited are difficult to explain in some of the Embers's Freudian terms and unlikely to yield to further HRAF-type research. We end by reiterating our call (Fought et al. 2004) for field studies and experimental approaches to understanding aspects of speech and phonetic variation in the world's languages.

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NOTES

1. Our basis for evaluating sounds relied on the guidelines of the International Phonetic Association. Essentially the same results were obtained when we analyzed data according to the number of syllables, rather than sounds, per word. The authors will provide scores to interested readers.
2. If speech signals were exceedingly short, there would of course be some lower limit to their effectiveness as contributors to audibility, but the lowest mean score among the 60 natural languages of our sample was 3.78 sounds per word.
3. Of the 21 languages in the cool-cold areas, only four exhibited high sonority scores. This low number of exceptions was as expected (Fought et al. 2004).

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Rejoinder to Munroe and Fought's Commentary

CAROL R. EMBER
MELVIN EMBER

In response to our research report suggesting additional predictors of sonority in language other than climate (AA 109[1]:180-185), Robert Munroe and John Fought present another intriguing idea. They suggest that the exceptions to their previous prediction that warmer climate societies would have higher sonority might be attributed to another linguistic property: shorter words (as measured by the average number of phonetic segments in a word). They had previously suggested that a high proportion of consonant-vowel syllables and high sonority were responses to warmer climates.

Munroe and Fought imply that the number of phonetic segments may be alternative to sonority as a means of increasing communication at a distance in warmer climates. If there is an alternative relationship between sonority and the number of phonetic segments, we would expect more sonority to go with a higher number of phonetic segments. Indeed, the two are marginally related positively in warmer climates ($r = .24$, $p < .06$, one tail).¹ However, the two variables are generally related negatively ($-.23$, $p < .08$, two tails) in all climates. This is presumably because warm climate leads generally to an increase in sonority (shown previously) and a decrease in the number of phonetic segments ($r = .21$, $p < .05$, one tail, $n = 60$).² When we statistically remove the effect of climate as measured by the number of cold months, the positive relationship between sonority and phonetic segments returns (the partial $r = .25$, $p < .05$, one tail).

The data in Table 1 show the relationship between climate and the various combinations of sonority and number of phonetic segments in the 60-culture HRAF Probability Sample Files. The overall table is significant with a significant linear trend top to bottom ($\chi^2 = 14.58$, $df = 1$, $p < .001$). Most societies with fewer phonetic segments alone, with high sonority alone, and those with both together are in warmer climates. In contrast, most societies lacking either high sonority or fewer phonetic segments are in colder climates.

TABLE 1. Relationship between Climate and the Combination of Sonority and the Number of Phonetic Segments

	Warmer climates (< four cold months)	Colder climates (> four cold months)	Total
Neither high sonority (above the median) nor fewer phonetic segments (below the median)	7	10	17
Low phonetic segments alone	10	4	14
High sonority alone	13	0	13
High sonority and fewer phonetic segments	15	1	16
N	45	15	60

Note: Chi-square for linear trend = 14.58, $df = 1$, $p < .001$.

Could the number of phonetic segments explain any of our previous results? We doubt it because the number of phonetic segments is not related to any of the factors we previously examined as possible predictors of sonority: density of plant cover, mountainous terrain, or degree of sexual expressiveness (measured by our factor score for premarital and extramarital sex). However, even though Munroe and Fought did not suggest that the number of phonetic segments predicts sonority, we redid Table 1 of our previous research report (AA 109[1]:182) to see if adding the number of phonetic segments would change our results. The overall R is slightly higher ($R = .56$, $n = 24$, $p < .05$), and dense plant cover is no longer significant (std. beta = $-.17$). Our strongest predictor from before, the factor score for sexuality, is still significant (the standardized beta is $.50$, $p < .01$, one tail). But the number of phonetic segments does not add significantly to the prediction of sonority. Thus, we conclude that the number of phonetic segments does not explain away the most important of our previous findings regarding sonority.

Munroe and Fought's commentary does add another factor in linguistic variation related to climate: number of phonetic segments in a word, which seems to be larger in temperate and cold climates. Why this is so remains another puzzle to be investigated.

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NOTES

1. We thank Robert L. Munroe for providing us with the data on the average number of phonetic segments.

2. The r is positive because the actual variable is the number of cold months: the more cold months, the more phonetic segments.



Obituaries



Photograph of Clifford Geertz. (Photo courtesy of Institute for Advanced Study)

Clifford Geertz (1926–2006)

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Clifford Geertz, one of the most influential figures in 20th-century cultural anthropology, died on October 30, 2006, in Philadelphia. He once invoked Michel Foucault's distinc-

tion between authors who merely write books and those whose writing establishes entire frames of reference:

between those authors (most of us) "to whom the production of a text, a book, or a work can be legitimately attributed" and those rather more consequential figures who "author... much more than a book"; they author "... a theory, tradition, or discipline in which other books and authors will in turn find a place." [Geertz 1988:17–18].

Note that little "most of us" dropped in the sentence. With either modesty or mischievousness, or perhaps a little of both, Geertz placed himself in the first category: those who merely write books. But virtually anyone who knows his work will agree that he belongs in the second: writers who, as he put it, "set the terms of discourse in which others thereafter move" (1988:19).

Clifford James Geertz was born in San Francisco on August 23, 1926, to a city engineer named Clifford Geertz and Lois Brieger, a semiprofessional tennis player. His parents divorced when he was very young, and he was sent to live with, essentially, a foster mother in Marin County. By his own account, he had a loveless childhood and escaped first to the navy, then to Antioch College. At Antioch he met his future wife, Hildred Storey, with whom he collaborated in much of his early work and with whom he had two children, Erika and Benjamin. A second marriage, in 1987, was to anthropologist Karen Blu.

Although he majored in philosophy in college, when it came time to go to graduate school, Geertz felt he wanted something that would "ground [his] thought more directly ... in the world's variety" (2000a:x). On the advice of a professor, he went off to the newly founded interdisciplinary Department of Social Relations at Harvard, where he studied with Talcott Parsons and Clyde Kluckhohn, among others.

Geertz did his first fieldwork in Java in 1952–54, together with Hildred (Storey) Geertz, and he received his Ph.D. in 1956. He taught for a year as an instructor at Harvard (1956–57), went back to Indonesia (to Bali) with Hildred (1957–58), and spent a year at the Center for Advanced Study in the Behavioral Sciences in Palo Alto. After that he taught for a year at the University of California, Berkeley, and then was hired, along with David Schneider and Lloyd Fallers, by the University of Chicago in 1960. The three

appointments—but especially Geertz's—were widely considered a coup on the part of the Chicago anthropology department, enhancing its already distinguished reputation.

In 1970 the visionary new director of the Institute for Advanced Study in Princeton, Carl Kaysen, invited Geertz to create a School of Social Science there. The position carried enormous visibility, prestige, and influence. Although Geertz was already well known within anthropology, the institute appointment—along, of course, with his writings—clearly played a role in carrying his reputation far beyond the field itself.

Clifford Geertz was, first and foremost, a profound theorist. His background was somewhat quirky: his undergraduate philosophy major, where he was mentored by an “unstandard academic, a charismatic, disenchanted philosophy professor” (Geertz 2000a:7), George Geiger, and then the “Soc Rel” experience, where Talcott Parsons was bringing in European social theory (especially that of Max Weber) and where there was great excitement about interdisciplinary experimentation.

Geertz took from this background both a general philosophical interest in the nature of the human condition and a specifically Weberian way of thinking about that question. For Geertz, as for Weber, human beings are creatures “suspended in webs of meaning that they themselves have spun” (1973d:5). Whatever else defines humans—material life, power relations, bonds of intimacy, and more—they are also defined by their capacity for making meaning and by their deep need for frameworks of meaning within which to live. There is no material or political or intimate aspect of human existence that is not at the same time culturally defined, shaped, and laden with cognitive and affective meaning.

Geertz's vision of the human condition as defined by the constant production and transformation of meaning in turn brought him to what is probably his most significant achievement, and certainly the one that established his reputation as a major anthropological theorist early in his career: rethinking anthropology's core concept, “culture.” His arguments about culture were laid out in a series of papers, starting with “The Growth of Culture and the Evolution of Mind” (1962). Geertz argued that “culture,” as an extrasomatic, superorganic system of symbols and meanings (the most obvious example always being language), was intrinsic to the very evolution of the human mind and brain. He developed the point philosophically, bringing in Gilbert Ryle's “extrinsic theory of thought” to argue that most human thinking involves—indeed, requires—a constant drawing on and playing with extrinsic symbolic resources, and calling on Susanne Langer's similar arguments with respect to feeling and emotion. These ideas were developed further in “Ideology as a Cultural System” (1973a) and “Religion as a Cultural System” (1973c). In these articles, the focus shifted from the question of how culture in general provides the human organism with the ordered forms without which it could not think or feel to the question of how specific cultures, in their specific symbolic formations, provide

their members with specific systems of meaning and order within which to live their lives.

Of the various kinds of “meaning systems” to which Geertz attended theoretically, none was more central than religion. Inspired by Weber's arguments about the psychological power and historical force of the Protestant ethic, “the boldness of which still astonishes” (2000b:171), Geertz theorized the workings of religion in social life with what can only be described as passion:

The problem of evil, or perhaps one should say the problem *about* evil, is in essence the same sort of problem of or about bafflement and the problem of or about suffering. The strange opacity of certain empirical events, the dumb senselessness of intense or inexorable pain, and the enigmatic unaccountability of gross iniquity all raise the uncomfortable suspicion that perhaps the world, and hence man's life in the world, has no genuine order at all—no empirical regularity, no emotional form, no moral coherence. And the religious response to this suspicion is in each case the same: the formulation, by means of symbols, of an image of such a genuine order of the world which will account for, and even celebrate, the perceived ambiguities, puzzles, and paradoxes. [1973c:107–108]

Although not religious himself, Geertz returned to questions of religion again and again throughout his career, from his first published article, “Religious Belief and Economic Behavior in a Central Javanese Town” (1956) and his first monograph, *The Religion of Java* (1960), through the landmark article quoted above (1973c), to one of his late pieces, “The Pinch of Destiny: Religion, Experience, Meaning, Identity, Power” (2000b), a powerful exploration of the role of “identity” in the contemporary world and the centrality of religion in many forms of contemporary identity.

Geertz was far ahead of his time in seeing religion as a continuing force in modern society. When he was writing his first works in the late 1950s and early 1960s, so-called modernization theory was regnant, a “theory” that assumed, among other things, the inexorable trend of modernity toward secularization. Geertz's view of the continuing importance and power of religion was in part theoretically driven—he once said he went to Java “to find the Protestant ethic in Asia” (personal communication with author)—but it also emerged from the undeniable evidence garnered in fieldwork itself.

Fieldwork was very important to Geertz at a personal level; he said “it did more to nourish [his] soul, and indeed to create it, than the academy ever did” (2000a:19). He was also convinced that it was the heart and soul of anthropology. He spent almost three years in Java, a year in Bali, and nearly three years in Morocco, and he authored, coauthored, or edited ten books specifically devoted to his ethnographic work on the cultural areas in which he did his research and on Islam as a world religion.

Geertz's work in Java and Bali made an enormous impact on subsequent scholarship in the area. There was a breathtaking output of five monographs in seven years: *The Religion of Java* (1960), *Agricultural Involution* (1963a), *Peddlers and Princes* (1963b), *The Social History of an*

Indonesian Town (1965), and *Person, Time, and Conduct in Bali* (1966), as well as an influential collection of articles, *Old Societies and New States* (1963c). Even after the Geertz started work in Morocco, two more books based on the work in Indonesia came out: *Kinship in Bali* (Geertz and Geertz 1975) and *Negara* (Geertz 1980). Between the power of his published work, his rapid rise to stardom at Chicago and then the institute, and the fact that he sat on several foundation panels that allocated funds for research in Southeast Asia (including at the Ford Foundation in 1971 and the Social Science Research Council from 1976 to 1982), Geertz can be said to have dominated the anthropology of Southeast Asia for several decades (see also Bowen 1995, 2003).

The Morocco work is a more complex matter. Geertz's first book to come out of the Morocco project, *Islam Observed* (1978), was a broad-brush comparison of the practice of Islam in Indonesia and Morocco, illustrating the powers of illumination of ground-level ethnographic observation as against the textualism that reigned in Islamic studies at the time. He also coauthored *Meaning and Order in Moroccan Society* (Geertz et al. 1979); the volume contained his celebrated (and itself book-length) essay on the Moroccan market, "Suq: The Bazaar Economy in Sefrou."

But Geertz's influence on the scholarship of the area was mixed from the outset. While several of his students worked on their own projects broadly within his theoretical framework, other young U.S. scholars went off in quite different directions, and the British anthropologists in the region were actively opposed to his approach (Ernest Gellner referred to the "cloud-culture-talk" of the "school" of Clifford Geertz [in Eickelman 2005:70]). As for the French, who more or less owned North African anthropology then and now, some scholars certainly attended to his work. Nonetheless, *Islam Observed* was not translated into French until 1992, and the Suq essay not until 2003.

In many ways Geertz's Moroccan work was, as Dale Eickelman (2005) has argued, as important for how it fed into his culture theory as it was for its ethnographic contributions. The collection of essays, *The Interpretation of Cultures* (1973b)—which the *Times Literary Supplement* called "one of the 100 most important books since World War II" (Yarrow 2006)—came out during the period of his Moroccan research. Most of the essays had been published earlier, and none of them derived from the Moroccan research, but the introductory essay, "Thick Description," was developed around an extended anecdote Geertz was told in the field concerning a Jewish trader, some Berber tribesmen, and two French colonial gendarmes. For many, especially those outside of anthropology, the essay came to define what Geertz did—and, to the extent that the Geertzian framework had achieved a certain hegemony within the field, what anthropologists in general do.

"Thick description" is frequently misunderstood to mean simply "dense detailed ethnography." In fact, the article says much more than that and gets to the heart of the Geertzian theoretical agenda: It is about how our job as anthropologists is to get at the meanings that shape and

inform all of social life. It is also about how we may and must go about uncovering such meaning, namely through reading social life as if it were a text, or as a text, to be interpreted, on analogy with the interpretation of literary texts.

The "Thick Description" essay marks another defining impact of Geertz's work. In it he explicitly took on an issue that had been smoldering in anthropology (and, indeed, to varying degrees in the other social sciences) since its inception: the question of whether anthropology should construct itself on the model of the hard sciences. For Geertz, and for many who found his arguments compelling, the answer was clearly no. Elaborating on the "webs of meaning" image, he continued: "I take culture to be those webs, and the analysis of it to be therefore not an experimental science in search of law but an interpretive one in search of meaning" (1973d:5).

The debate over Geertz's position—that anthropology is and should be closer to the humanities than to the hard sciences—was extremely acrimonious at the time, and it remains bitter in certain circles even today. Indeed, one of the first "obituaries" to come out after Geertz died was a violent attack, referring to his work as "covered in fuzz" and lamenting the way in which it had turned anthropology "into a lame and confused form of literary scholarship" and "widened the strange gap between the social and natural sciences" (Tiger 2006; for a response, see Shweder in press).

The debate over the relevance of hard-science approaches for anthropology shadowed Geertz for much of his career. He never pursued it theoretically: he was much more interested in articulating a positive program for anthropology and doing his own research than getting bogged down in the science wars. Still, in later years, he expressed regret for not exploring the issue further, never having written, as he said, "Science as a Cultural System" (2005:114–115). But he lived his own science wars at the institute, in the form of highly publicized battles that pitted the physicists and mathematicians (and sometimes a few historians) against the School of Social Science over several appointments he proposed for the school.

Because he did not spend most of his career in academic departments, Geertz produced a relatively small number of Ph.D.'s. However, during his long tenure at the Institute for Advanced Study, he and his colleagues in the School of Social Science provided fellowships—as well as lively seminars and lunch conversations—to hundreds of social scientists and historians with an interpretive bent. The cohorts of fellows were diverse, always including younger as well as more senior scholars, women as well as men, and many international fellows.

Although the Institute setting may have led to a view of Geertz as an ivory tower intellectual, in fact he was very active professionally, serving on over 50 boards of journals, associations, and foundations. He also committed his sharp mind and witty prose to writing in the public domain, serving as a reviewer and essayist for *The New York Review of Books* since 1967 and for *The New Republic* since 1980.

Geertz was greatly honored in his time, receiving many honorary degrees (including from Harvard, Yale, Princeton, and Cambridge) and scholarly awards (among them the Talcott Parsons Prize, the Sorokin Prize, and the Huxley Medal), as well as delivering a large number of distinguished lectures. He also served stints as a visiting professor in England, Japan, Australia, Germany, Italy, and France.

Geertz had a profound impact on the field of anthropology itself. It is not simply that he won adherents to his particular intellectual position. It is that by pushing the discipline closer to the humanities, he in effect repositioned it within the larger intellectual arena. Cultural anthropology came to occupy an interesting and fertile middle position between the social sciences and the humanities, a point of reference and a source of theorizing for a wide range of social science and humanistic fields (see Ortner 1999; see also Knauff 2006). In the process, anthropology has become, in large part thanks to Clifford Geertz, a player in the larger U.S. intellectual arena in a way that perhaps has not been the case since the time of Franz Boas and Margaret Mead.

NOTES

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Craig Morris sitting in his fifth floor Office at the American Museum of Natural History. (Courtesy of the American Museum of Natural History, Denis Finnin, photographer)

Edward Craig Morris (1939–2006)

DAVID HURST THOMAS

American Museum of Natural History

Edward Craig Morris, known as Craig, the leading Inka archaeologist of his day, died on June 14, 2006, in New York

City, of complications following heart surgery. This gentle, thoughtful man, whom John Noble Wilford called "a towering figure in pre-Columbian archaeology" (2006:C11), transformed the practice of Andean archaeology.

The name of Craig Morris will forever be associated with the long-term, meticulous excavation of two major Peruvian sites—Huánuco Pampa (the extraordinarily well-preserved highland Inka administrative center) and La Centinela (a very different kind of Inka site on the southern Peruvian coast). Whereas most Inka scholars had previously based their political, economic, and social reconstructions strictly on information contained within 16th-century documents, Morris put Inka history into the active voice by critically evaluating these same documentary sources against independent data generated from his own archaeological excavations and regional settlement pattern studies.

Craig Morris was born on October 7, 1939, in Murray, Kentucky, and was raised on a 170-acre farm four miles from there. He was born with a congenital heart defect so severe that his physicians doubted he would survive childhood. According to his sister Emily, "Our mother, father and I, ever mindful of his disability, always protected him because of it," but "there is no doubt in my mind that his disability in the long run was the prime motivator of his many achievements" (personal correspondence, Emily Luther Morris to American Museum of Natural History, December 2006). And these achievements were legion.

After graduating with a degree in psychology and philosophy from Vanderbilt University in 1961, Craig enrolled in the anthropology program at the University of Chicago, where he studied with Robert McC. Adams, Robert Braidwood, and Donald Collier. His first archaeological experience came in Utah in 1962, when he participated in the UCLA field school. The next summer, he joined F. Clark Howell's team excavating important Lower Paleolithic sites at Torralba and Ambrona in Spain.

Craig Morris's life changed forever when John V. Murra introduced him to the world of the highland Inka. From a highland regional state, the Inka rapidly expanded outward from their capital at Cuzco. Ultimately, the Inka empire dominated more than 12 million people, who spoke dozens of distinct languages. At the time of Spanish contact, the Inka controlled all of highland and coastal Peru, highland Ecuador and Bolivia, Chile to the south of Santiago, and much of northwestern Argentina. In his innovative project, "A Study of Inka Provincial Life," Murra combined the strengths of ethnohistorical documentation with strategic excavations at a highland Inka administrative center. A last-minute addition to Murra's Huánuco Pampa project in 1964, Craig Morris later commented about the experience, "You go to a country and you can either be taken by it or repelled. Peru was truly love at first sight and I have a passion for excavating it" (Kifner 2003).

Work on Murra's project was the basis of Morris's doctoral dissertation (1967), which demonstrated how archaeological investigations of the imperial warehouses could provide new clues about Inka political and economic systems,

especially about how local ethnic groups were integrated across the Andean empire. After receiving his Ph.D., Morris taught for a year at Northern Illinois University, then moved to Brandeis University (1968–75), where he was awarded tenure. In 1975, he succeeded Junius Bird as Curator of South American Archaeology at the American Museum of Natural History, a position he held for 31 years, until his death. He also served as chairman of the Department of Anthropology (1983–90), Dean of Science (1994–2005), and senior vice president (1998–2006) of the museum.

Morris returned repeatedly to Huánuco Pampa between 1971 and 1981, developing innovative methods of sampling, mapping, and recording the 3,000 buildings that sprawled across the 500 acres of the site (Morris and Thompson 1970, 1985). Excavating more than 300 of these buildings at Huánuco Pampa, he determined that the Inka state had redistributed maize beer on a massive scale, indemnifying the huge labor force required to terrace the hillsides, dig the irrigation canals, and cultivate the crops (Morris 1979).

Craig Morris always preferred the high road, literally. For nearly two decades, he rolled the dice, refusing to allow his congenital heart problems to stand in his way. He gambled his own health against the challenges of understanding provincial Inka urbanism in a whole new way, and he won. But the stress of spending 36 months digging at 12,000 feet above sea level resulted in his first heart valve surgery, about which he would later joke with friends (Lynch and Barnes 2006:2).

But reason (and the advice of concerned physicians) eventually prevailed, and Morris reinvented himself on the southern Peruvian coastline. Setting up shop at La Centinela, in the Chincha Valley, he developed a different perspective on the Inka empire. Unlike Huánuco Pampa, La Centinela had been an administrative center long before the Inka empire arose, and Craig's excavations (1983–2005) revealed a complex, dual kind of governance. The Inka governor at La Centinela retained the local Chincha lord in power, probably to preserve the valuable trade in *Spondylus* shells. To house these two leaders, Inka laborers erected paired palaces, side-by-side and independent but with interlocking spaces reflecting this unusual administrative duality. Informed by the environmental, architectural, and economic differences between La Centinela and Huánuco Pampa, Morris could now define a new range of governance strategies employed within the vast Inka state (Masuda et al. 1985; Morris and von Hagen 1993; von Hagen and Morris 1998). Such dual governance was only effected when the local ruler was already very powerful. In addition to his work on these two sites, he studied the painted adobe walls at Tambo Colorado in the Pisco Valley, south of Lima (2001–05) and briefly conducted archaeological surveys and excavations in the Cochabamba region of Bolivia (1993–94).

Assessing his impact on Inka archaeology, Joyce Marcus concluded:

Craig Morris expanded our knowledge of the Inka empire by [getting] at its infrastructure, its strategies for territorial

expansion, the mechanisms it used for assigning value to goods, and the way it integrated scores of ethnic groups from Ecuador to Chile. . . . The models that Morris created . . . redirected a whole generation of Andean research, encouraging us to add storage systems, economic strategies, labor service, and public hospitality to extant models. His ultimate legacy was the creation of multivariate models of state bureaucracies that will guide future generations in the Andes and elsewhere. [Marcus 2007:12–13]

For these contributions to Andean archaeology, Morris was elected to both the National Academy of Sciences and the American Academy of Arts and Sciences in 1988.

With this level of achievement, it is easy to overlook the fact that, like Margaret Mead, the major part of Craig's career played out in a museum matrix, only tangentially connected to the university establishment. Mead said of her *Peoples of the Pacific Hall* at the American Museum, "This hall has been part of my working life for 45 years" (1971:54). She also argued, at the outset of World War II, that museums would continue to be viable institutions so long as the curators insist "on asking 'Is it true?' instead of 'Will it make a hit?' " (Mead 1941:67).

Morris understood and shared Mead's passion for educating the public through honest and high-quality museum exhibitions, and he spent a significant part of his life crafting stories for a larger audience. An articulate and graceful writer who also knew how to communicate visually, he curated numerous exhibitions, including *Peru's Golden Treasures* (1977–78), *Gold of El Dorado: Heritage of Colombia* (1979–80), *The Royal Tombs of Sipán* (1994, cocurated by Walter Alva and Christopher Donnan), *Leonardo's Codex Leicester: A Masterpiece of Science* (1996), and *Petra: Lost City of Stone* (2003, cocurated with Glenn Markoe). A few days before he checked into the hospital for what would be his fatal heart surgery, Craig stopped by the office of Ellen Futter, the museum president, to discuss two new shows that he planned to curate.

These shows will not happen, but the lasting museum legacy of Craig Morris is secure in the permanent *Hall of South American Peoples*, which opened at the American Museum of Natural History in January 1989. When he first arrived at the museum, Craig realized there was no way for the public to appreciate and study the premier collection of South American archaeological and ethnographic materials in the United States. At the same time that he carried out his archaeological fieldwork during the 1980s, he designed a new Andean archaeology exhibit, working closely with his cocurator Robert Carneiro, who presented traditional Amazonian life. The resulting exhibit has been called a "stunning display of Native American technological and artistic achievement . . . a 'feast' . . . one has available for study some of the finest and most famous, pieces of pre-Columbian art preserved from Peru" (Urton 1992:46, 47). Craig's extraordinary sense of color and balance shine through the Andean section, with its high ceiling and feeling of open space, its earthy color scheme complementing and blending with the subtle vegetal dyes of ancient textiles and the muted tones

of pottery painted long ago. Today, the hall is still regarded as the preeminent exhibit of its kind in the country.

To craft an exhibition on this scale, Craig was forced to navigate some difficult terrain. One of the museum's most acclaimed holdings is the so-called Copper Man, a muscular youth who died when his mineshaft collapsed 1,500 years ago in the Atacama Desert of northern Chile. The high altitude and arid climate effectively freeze-dried his body and preserved his copper mining tools, his coarse woolen loin-cloth, his anklets of fur and wool, even his multiple-braided hair. The discovery of Copper Man in the late 19th century triggered a flurry of speculation about the antiquity of metal smelting prior to the Spanish conquest (Bird 1979; Graffam et al. 1996). Because of its scientific significance and popular appeal, Craig felt obliged to include the find in his presentation of ancient Andean mining and metallurgy.

At the same time, he was well aware of growing native North American opposition to the sometimes cavalier exhibition of indigenous human remains; a year after the opening of the South American hall, these concerns would culminate in the passage of the Native American Graves Protection and Repatriation Act (NAGPRA). During the lead-up to NAGPRA, as issues of reburial and repatriation were being aired and debated for the first time, natural history museums across North America came under tremendous pressure to cease exhibiting human remains of any kind—whether from the United States or anyplace else.

Caught in the middle, Morris appreciated the conflicting sentiments surrounding the potential exhibiting of Copper Man. Either solution—to exhibit or not to exhibit—seemed to hold a major downside for the museum. By excluding Copper Man, an iconic discovery of major scientific import, was he asking (in Mead's words) "Is it true?" or fretting over public relations consequences? As tensions mounted and exhibition deadlines approached, Craig devised a simple yet almost Solomonic solution to the problem. Today, the visitor entering the hall walks up a short ramp leading to the three cases addressing ancient mining and smelting in the Andes. Inside one of these cases is Copper Man, lying there, his knees bent and hands extended, as if trying to deflect the falling rock. He still grips a stone maul hafted to a wooden handle with leather strapping. At his belly lies a skin collecting bag. Copper Man and his artifacts do indeed appear in the exhibit, but only those interested in bending over and peeking into the ankle-height copper mineshaft can see him. Thanks to Craig's sensitivity and meticulous attention to detail, he avoided the shock value and sensationalism that offended so many Native Americans and told the truth about life in the ancient Andes.

Craig Morris will be remembered by his friends and colleagues as a problem solver, an extraordinarily wise professional whose courtly, even urbane, manner belied his decidedly rural roots. His sly, irreverent sense of humor and meticulous demeanor overshadowed his quiet acceptance of his fate. His integrity, intellectual rigor, and gracious spirit opened the door to colleagues interested in firsthand Peruvian research. But he himself described his life's work

differently: "Archaeology," he said, "is totally and completely in my blood" (Kifner 2003: B12).

NOTES

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2006 Craig Morris, a Towering Figure in Inca Expeditions, Dies at 66. *The New York Times*, June 16:C11.



John V. Murra. (Photo courtesy of Sidney Mintz)

John Victor Murra (1916–2006)

FRANK SALOMON

University of Wisconsin, Madison

John V. Murra, who died in Ithaca, New York, on October 16, 2006, transformed anthropological views of what he called "the Andean world." In doing so he revitalized ethnohistory as a core anthropological enterprise. From his politicized youth in Rumania and civil war Spain, he retained a tenacious focus on inequality and power. But he was a dissenter from much of the Marxian tradition, as well as from the social science of the Sputnik era. A humanist toughened by war, Murra recovered the active, speaking presence of historic Andean people. He searched out an unsuspected wealth of early primary sources and pulled colonial chronicles into ethnographic perspective. His research moved Inka society, previously seen as an enigmatic example of divine kingship, into the major arenas of debate about state-level societies. By treating Amerindian groups as co-creators, not just victims, of colonial and modern society, he durably influenced Latin American historiography. Witty, charismatic, and imperious, Murra was a lion in defense of students with clear-cut vocations. Prewar ideals of

honor lived on in him, and he taught steadfast collegial loyalty by example.

John Murra was born Isak Lipschitz on August 24, 1916, in Odessa, the child of moderately observant Jews. In 1920, as revolutionary violence racked the city, the family fled across the Dniester River to Rumania. Murra aligned with Communism in high school and was repeatedly jailed in political fights as Iron Guard fascism took the nationalist lead. Luckily his father's brother, then a musician in a Chicago "Gypsy" band, invited the youth to the United States and helped him enter the University of Chicago. He quickly found his way to anthropology, but at the time of his B.A. (1936), politics was his main passion. Although he had recently married Virginia Miller, he joined the Abraham Lincoln Brigade and was infiltrated into Albacete, Spain. Adding Spanish effortlessly to his repertoire of Rumanian, German, Russian, French, and English, he translated for the political commissars and so accidentally became privy to Stalinist cynicism. He was severely wounded in the chest and leg during the 1938 Ebro offensive. In 1939 he was back in France, interned on a freezing beach near Perpignan. He renounced the party the same year. By the time his wife's advocacy helped him return home, he had become used to his nom de guerre Murra and, later, legalized it. (It derives from his childhood nickname, Mura, meaning "blackberry" in Rumanian, in allusion to his large, dark eyes.) He regarded Murra as his only real name: the emblem of his soldierly, democratic ideals and also of his youth.

Murra returned to the University of Chicago as a graduate student, where he was advised by Franz Boas's former student Faye-Cooper Cole. Cole gave Murra his first taste of ethnohistory by hiring him to extract French Jesuit Relations. But it was the teaching of A. R. Radcliffe-Brown and Fred Eggan that excited him. Murra would probably have become an Africanist had he not seen a note on a bulletin board saying that Donald Collier of the Field Museum needed a Spanish-speaking assistant at the archaeological site of Cerro Narrio, in Cañar Province, Ecuador. Collier and Murra were pushed out prematurely when Ecuador and Peru went to war over nearby territory. They headed north along the sierra, intending to test Max Uhle's thesis about a Maya "tide" in South America. Their report (Murra and Collier 1943) was the first to describe *Spondylus* seashell as a coastal Ecuadorian import among highland peoples. *Spondylus* was later to become a major theme in understanding long-distance links among ancient Andean peoples (Cordy-Collins et al. 1999). But archaeology did not immediately fire Murra's imagination.

What Murra instantly loved was surveying in the Quichua-speaking countryside. A favorite photograph captures the moment: resting on horseback amid the "grass forest" of the heights, flanked by mounted campesinos, the young rider tilts his head and gazes, fascinated, as if noticing something remarkable. When asked in 1993 what had drawn him to the Andes, he said, "In 1941–42 I was dazzled by Andean things ... I saw that it was a very good problem,

very big ... it wasn't a matter of mere readings; I'd seen it" (Castro et al. 2000:66).

Just when he was ready for major Social Science Research Council-sponsored research on Otavalo's "merchant Indians," denial of a passport cut Murra off from the Andes. The great wooden tables of the New York Public Library became the forge of his dissertation, *The Economic Organization of the Inca State* (1956). Ideas of precapitalist statecraft from his African studies helped him make anthropological sense out of 16th-century soldiers' and missionaries' words. The result overshadowed existing accounts of the Inka state and soon became an unpublished classic. Still, Murra hesitated with self-punishing perfectionism before publishing it (1978, 1980a, 1987).

For Murra, the 1940s were years of frustration (including rejection as a U.S. army volunteer) and a time of pickup jobs. It was also the time (1945) when he married his second wife, Elizabeth "Tommy" Sawyer; this marriage too was childless. He assisted Ruth Benedict and John Dollard, edited anthropology for *Encyclopedia Britannica*, and taught at the University of Puerto Rico (1947–50). He participated in Julian Steward's 1948–49 Puerto Rican comparative project, about which Murra spoke with both disappointment and joy: disappointment at failing to "educate Julian" toward a more historicist, less schematic kind of materialist anthropology, and joy at discovering two lifelong friends, Sidney Mintz and Eric Wolf. Murra spoke of his chapters in the *Handbook of South American Indians* (1946, 1948) as mere occasional work, perhaps because of dissatisfaction with what he considered Steward's underrecognition of contributions by his admired friend Alfred Métraux. During the early 1950s he collaborated in Columbia's and Yale's field schools in Jamaica and Martinique. A side trip to Mexico cemented one more lifelong friendship, with the Catalan Spanish war veteran and anthropologist Angel Palerm.

Vassar College hired Murra in 1950 and supported him steadfastly in his struggle for citizenship. He finally won it in 1956, as McCarthyism faded. Notwithstanding the political shadow, Murra, like his early apprentice the MIT archaeological metals specialist Heather Lechtman, remembered the Vassar years as a time of exhilarating classroom success. Despite the 1953 death of his Yale-based *arqueólogo de confianza* Wendell Bennett, Murra also taught occasionally at Yale until 1971.

After so many detours, Murra in 1958 finally got a sabbatical and returned, after 17 years, to the Andes. His belated acquaintance with the sacred city of Cuzco set him off sharply from Inka specialists who had more readily taken the ceremonial center to be the heart of the Andean matter. As Murra's view of Europe had grown from peripheries, so did his study of the Andes prioritize non-Inka peoples and provincial centers. His developing view of Tawantinsuyu, the Inka state, as a political engine for articulating diversity was to become his most decisive imprint on the Andean field.

It was also on this trip that Murra assumed two practical commitments: to search out unpublished early manuscript

sources and to build up Andean research institutions. While teaching at Peru's flagship university, San Marcos, he encouraged Maria Rostworowski to dig out the now-prized records of Peru's early-extinguished coastal native peoples. In Cuzco, where he began reading in archival manuscripts, Murra met Peru's bilingual literary genius José María Arguedas. Their intimate ten-year correspondence attests to his cooperation with Arguedas in translating the 1608 Quechua Manuscript of Huarochirí (Murra and López-Baralt 1996:133–138).

Peruvian travel confirmed Murra's belief in the complementarity of archival research and archaeology. Because Vassar did not then allow long leaves, his decision to organize a huge archaeological-archival project with Craig Morris and others at the Inka provincial center of Huánuco Pampa forced him into another period of scattered employment. The research was financed by the Institute for Andean Research and, from 1963 through 1966, by the National Science Foundation; he wrote up the results while holding a National Academy of Sciences postdoctoral fellowship at the Smithsonian Institution. At the Escuela Nacional de Antropología in Mexico City (1961), San Marcos (1964–66), and the Universidad de Chile (1965), he infused new research currents into local training. He became a founding member of Peru's Instituto de Estudios Peruanos and helped build a graduate program at the Universidad de La Plata (Argentina) in 1966.

But above all, these years saw Murra immersed in the *visitas*. *Visitas* are house-to-house inspections in which Spanish officials described "ethnic polities": for example, the Titicaca "lakeside kingdom" of Lupaqa, whose 1567 visita Murra copublished in 1964, and Huánuco, whose 1562 visita was published in 1967–72 (see also Murra 1991). For Murra, these boring-looking sheaves of household detail, which historians had passed by, were nothing less than ethnographic field notes from the preanthropological past—and not just any past, but one during which people who had grown up in pre-Columbian times could still speak for their societies. Some visita themes became public when, in 1969, Murra gave four Lewis Henry Morgan Lectures at the University of Rochester. Their publication is now belatedly in process.

In 1968, Cornell University hired John Murra, with tenure, to replace the late Allan Holmberg. He gave Cornell a more sophisticated Latin Americanist profile, organizing a comparative seminar on the Andes and Mesoamerica with Angel Palerm (1972), a Lake Titicaca field project with Luis G. Lumbreras (1973), and Cornell's international "Otoño Andino" (1977). In this period he occupied many prestigious research and teaching perches: the Institute for Advanced Study at Princeton University (1974–75), the University of Paris X Nanterre (1975–76), and Mexico's Instituto Nacional de Antropología e Historia (1977).

In the 1970s Murra was ready to publish the ideas he had gestated from *visitas*. That he did so mostly in short articles reflects the stress he suffered while writing; that they are mostly in Spanish reflects a principled decision to ad-

dress the Latin American public first. In 1972 he published the "vertical archipelago" model, which provoked a cascade of research on how Andean polities articulated "islands" in diverse levels of the montane habitat to assemble complex economies. In 1975, the Instituto de Estudios Peruanos assembled 12 of his works as *Formaciones económicas y políticas del mundo andino* (see also Murra 2002). *Formaciones* proved immensely influential. By the time Murra joined with Nathan Wachtel and Jacques Revel to produce the 1978 special Andean number of *Annales* (English version 1986), he had become a scholar of worldwide stature.

Murra taught at Cornell until 1982. He expected students to understand how their work is rooted in the origins of ethnography. Countries, he taught, have anthropologies—academic or not, enlightened or not—as part and parcel of their historic interconnection with other peoples, including fierce and destructive episodes. Anthropologies exist in cultures and as subcultures of particular times and places. When Murra ran for president of the American Anthropological Association in 1982, his platform argued against the inclusion of anthropology in the social sciences. He wanted American anthropology to recognize itself as the outgrowth of relations with American Indian peoples. "Indian-fighter" ancestors did not make him flinch any more than did Latin American anthropology's roots in Iberian imperialism. Where else could ethnographic knowledge come from but from real historic crunches? From the crunches, decent or enlightening encounters have sometimes somehow been made—by Henry Schoolcraft, by Boas, by Fray Domingo de Santo Tomás, even by arm-twisters like the colonial lawyer Polo de Ondegardo—and that is what ethnography achieves. Murra wanted researchers to be worldly as well as learned. Instead of claiming innocence by virtue of Third World solidarity, or of objectivity, or of theoretical transcendence, anthropologists should recognize themselves as players put haphazardly into a world of dangerous power and do something good with that situation.

Institutional cargos were therefore not unwelcome to him. As his friend Sidney Mintz pointed out, Murra had sympathy for the hard, smart players in history. In 1967 Murra was one of four North American delegates to the Burg Wartenstein conference at which anthropologists addressed the crisis caused by revelations about CIA meddling in research (*Current Anthropology* 1968). Although he argued minority positions, Murra's enthusiasm and erudition won him the presidencies of the American Society for Ethnohistory (1970–71), the American Ethnological Society (1972–73), and the Institute for Andean Research (1977–83).

Murra meant his work to bring stigmatized Quechua- and Aymara-speaking populations into more equal relation with Euro-America. His notion of "ethnic" states in antiquity lay close to his view of modern "ethnicity" as the uncomfortable central fact about Andean countries. He and Arguedas were almost alone in taking this position. In 1966, Arguedas dedicated to Murra his Quechua poem "Huk duk-turkunaman qayay" ("A Call on Some Doctors"). Written on

the eve of Arguedas's first suicide attempt, the poem rebukes social scientists who had savaged his novel *Todas las sangres* (1964) for its "Indian" content. Murra's last book (1996, with Mercedes López Baralt) discusses this incident in passionate detail. Underdog sympathies also strengthened his love for the "Indian Chronicler" Felipe Guaman Poma de Ayala. One of Murra's most satisfying Cornell ventures was a study edition of Guaman Poma (1980b, available at the website of Denmark's Royal Library).

After his retirement from Cornell, Murra enjoyed a stellar emeritus life. He received a Guggenheim Fellowship (1983–84), which he used to resume research in Spain's colonial archives. Murra had never been shut out of Spain because Franco-era officialdom apparently did not know that a dossier on his Republican soldiering existed until he himself delightedly retrieved it. All the same, it was a joy to him to take a place in post-Franco Spanish academe. He lectured in Madrid, Seville, and Barcelona (1985–86). In the 1980s he enjoyed many honorific visits: Johns Hopkins University, Bolivia's Museo Nacional de Etnografía, the London School of Economics, the Soviet Union, and the Instituto de Antropología in Buenos Aires. Peru decorated him with the Grand Cross of the Order of the Sun in 1987. He traveled to Spain again in 1990–91, and in 1993 the Universitat de Barcelona awarded him the degree of Doctor Honoris Causa. In 2000 his Chilean students published Murra's oral memoirs (see also Rowe 1984).

Despite standing crosswise to the trends of his time, John Murra was no lonely contrarian. Charm, laughter, polyglot wit, and hospitality came easily to him. Not only Andeanists but also ethnographers as diverse as Bea Medicine and Raymond Firth were glad to grace his classroom. He enjoyed to the end the loyalty of friends in many countries, including his right-hand helper of 35 years, Judith Willis. Murra's papers are conserved in the National Anthropological Archives of the Smithsonian Institution.

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John Rowe. (photo courtesy of Patricia J. Lyon)

John Howland Rowe (1918–2004)

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John Howland Rowe, Emeritus Professor of Anthropology at the University of California, Berkeley, died of complications of Parkinson's disease on May 1, 2004, in Berkeley. He had remained active long after his retirement from teaching, traveling to Cuzco every summer until 1998 to work in archives, to discover what the local archaeologists had found since the year before, and to train and mentor students from the University of Cuzco, where he had begun his teaching career in 1942.

John Rowe was a dedicated student of the Incas virtually all of his life. He was born on June 10, 1918, in Sorrento, Maine. He grew up in Providence, Rhode Island, where his

father was director of the Rhode Island School of Design, and his mother Curator of Textiles at the Yale University Art Gallery. In part because of his father's interests in archaeology and a year spent in Rome as a boy, Rowe decided on a career in archaeology by the time he was ten. He pursued a classics major at Brown University, acquiring the broadly humanistic training of classical archaeology, which had developed in close contact with historical and linguistic studies. Even before starting college, he had been interested in the Incas, so as soon as he graduated, in 1939, he used the proceeds from the Latin and Greek prizes he had won to finance a trip to Cuzco. Cuzco was all he had hoped it would be, and in 1941 he enrolled at Harvard to study the Andes, earning a Ph.D. in Anthropology and History in 1947. A joint degree was unusual at the time, but his studies in history equipped him to develop a perspective on the Andean past that took both material remains and written records into account over the longue durée.

Rowe's first post was at the Universidad Nacional de San Antonio Abad del Cuzco, where he also served as director of the Museo e Instituto de Arqueología. While in this position, he was drafted into the U.S. Army, and he served in Europe between 1944 and 1946. After the war he took a teaching position at the Universidad de Popayán in Colombia. In 1948 he was appointed to a faculty position at the University of California, Berkeley, where he remained for the rest of his career, until his retirement in 1988.

In effect, Rowe brought the training and interests of classical scholarship to anthropology. The depth of this scholarship was manifest early, with the publication of his article on Inca culture in the *Handbook of South American Indians* (1946), which included a map of the ethnic divisions of the Andean region. Rowe wrote an ethnography of the Incas from the available bibliography, employing the same kind of descriptive terms used elsewhere in the *Handbook* to describe the indigenous peoples of the continent. The article was an impressive display of his bibliographical command and ability to synthesize, and it established his reputation. It was perhaps the most cited of Rowe's publications. However, he never allowed it to be republished or translated, despite requests that kept coming, because he felt it needed revision in light of new documentary sources.

Rowe's map, which included the region published in the article on "The Aymara" (1946:184), was part of a larger project encompassing all the peoples of South America. First appearing in a blueprint edition in 1949, the map was subject to revision until it was published in 1974, to accompany a reader by Patricia J. Lyon that would be widely used in courses on lowland South America in the following decades (Lyon 1974). Rowe taught this course in the Berkeley department until his retirement, maintaining his ability to understand developments in the Andes from a South American perspective.

Another thread that characterized Rowe's interests throughout his career was the idea of time or ideas about time, whether used simply to structure sequences or in the more precise realm of chronology. Throughout his career,

he tried to derail evolutionary notions that assumed a universal human progression through a series of stages. In Rowe's work, Andean history was event based, even if these events were difficult to detect in the archaeological record. The additions to the temple at Chavín de Huantar, the expansion of Chavín that was manifest on the Peruvian coast, and the transfer of a mode of iconographical representation from Pucara to Tiahuanaco had all happened in real time and involved the participation of individuals as well as groups. Calendar years are essentially arbitrary; that is, they are not linked to particular human developments as are evolutionary stages. A temporal framework for the Andean past required this same kind of arbitrariness.

In one of his first publications (1945), Rowe began to adapt the chronological framework of Max Uhle then in use. Uhle had identified two horizons in the Andean past, the second being the time of the Inca expansion. Rowe reasoned from the written sources available after 1533 that the Inca expansion was recent and sudden. Even if only a short span of time had elapsed between the initial Inca campaigns outside of Cuzco and those at the farthest reaches, what happened locally during that short space of time was important to any story about the development of the Inca empire. To establish a framework that would preserve an image of real time, he developed the idea of a "master sequence," defined in the Peruvian coastal valley of Ica, which had been affected by the succession of expansive cultures then known. Rowe also had at hand the materials excavated by Uhle in Ica and housed at the Robert H. Lowie (now Phoebe A. Hearst) Museum. Rowe lived to see the revitalization of evolutionary terminology, such as the "Formative" to describe an early developmental stage, in the Andes. As the periods described by this nomenclature become increasingly better known, the problems inherent in evolutionary stages begin to manifest themselves, as Rowe had said they would in 1962.

Rowe's historical approach ran increasingly against the currents of an archaeology and an anthropology that strove for scientific legitimacy, largely through the development of a general body of theory. For Rowe, the application of theory was simply not the better part of science; science benefited from the flexibility of testing "multiple working hypotheses." He regularly assigned the classic article by Thomas Crowder Chamberlain (1897) to his graduate students to keep them from the pitfalls of too rigid an adherence to prevailing theories. Rowe was also not averse to the use of scientific technologies in the analysis of archaeological materials. He witnessed the birth of radiocarbon as a method for measuring the age of organic materials; he took samples for processing, subscribed to and wrote for the journal *Radiocarbon*, and remained open to the idea of a scientific method for establishing absolute dates in the prehispanic Andes. Because of the probabilistic nature of radiocarbon and problems inherent in dating more recent periods (such as the time of the Inca expansion), he advised that the arsenal of archaeological techniques developed for establishing relative sequences be pursued independently of techniques

like radiocarbon measurement. This was wise, especially for an Inca scholar, since the day when radiocarbon can replace other methods has not yet come.

Rowe's greatest effort in the training of students was directed toward preparing future archaeologists, since most of the Andean past has to be approached archaeologically. His own research, on the other hand, drew amply from his training in academic history, particularly his methodological strengths in bibliography and source criticism. Sometimes the results seemed to be indistinguishable from the work of historians on similar topics: for example, Rowe's extensive study of the Incas under Spanish colonial institutions (1957). What was new in the discipline of history at the time that Rowe wrote was a systematic focus on an indigenous perspective. Historians generally recognize Charles Gibson's book on the Aztecs (1964), which bears a remarkably similar title to Rowe's 1957 work for such honors, failing to see Rowe as a precursor. Yet Rowe's work on topics related to the Incas during the Spanish colonial period began in 1946, and it continued throughout his career. His 1955 publication on the Inca nationalist movement of the 18th century has been republished in both English and Spanish, reflecting the interest in indigenous movements in the Andes awakened by Rowe's pioneering study. Related work by Rowe on colonial symbols of Inca identity, particularly those realized in tapestry cloth (1951) and in enamel inlay on wooden cups (1961), has stimulated research by art historians and others studying the visual arts in recent years. Rowe also made significant contributions in the field of historical linguistics and the history of linguistics (1950, 1954).

Rowe also turned his historical interests to the history of anthropology, which he taught as a graduate seminar in the Berkeley department. His most important publication in this field was a lead article in the *American Anthropologist* on the Renaissance foundations of anthropology (1965). He argued that anthropology was born in the Italian Renaissance movement of the 14th and 15th centuries, out of a growing sense that Greek and Roman antiquity was qualitatively different, rather than simply removed in time, from the present. Both archaeology and linguistics were prominent avenues for defining the difference and for the development of a comparative point of view. When Europeans began to travel in regions of the world where they had seldom or never been, such as the Americas, they not only had methods for describing difference but also an interest in doing so. In subsequent years, anthropologists were increasingly to see the formation of their discipline in the colonial encounter itself, neglecting Rowe's insight that the "perspective distance" that permitted anthropological observation in the first place was opened when Europeans began to study Classical antiquity "in a framework which contrasted it with their own times" (1965:14).

During his later years, Rowe concentrated on the Incas, visiting archaeological sites and working in archives in Cuzco. Although he did not discover any major new documentary sources, he recognized the importance of two recently found documents for their contribution to Inca

studies. One was a document presented in 1569 to Spanish authorities by the descendants of Thupa Inca, the 10th Inca, to put the conquests of their ancestor on record (1986). The list of conquests appears to have been drawn from a *kipu* (knotted string) record, and so constitutes a direct reflection of an Inca historical genre. What is particularly important is that the record was presented before Viceroy Francisco de Toledo arrived in Cuzco in 1571; thus, it was independent of the records made of the Inca past under his auspices and free of his distorting influence. A second document, turned up by historians interested in the colonial period that Rowe brought to the attention of Inca scholars, contained information about the archaeological site of Machu Picchu in prehispanic times, indicating that the site had been part of an Inca estate (1990). This small bit of information has revolutionized the interpretation of a place that has represented Peru to the world since the early 20th century. Rowe's other significant documentary publication occurred in 1980 when, as editor of the journal *Nawpa Pacha*, he translated and published the "Chart of the Ceques," a document copied into the work of a 17th-century Jesuit (1980). An elaborate model of Inca social organization had been constructed from this source by R. Tom Zuidema (1964), and Rowe wanted to make the document available to a wider audience so that those interested in the Incas could judge for themselves the interpretations of the structure of Inca society being offered to them. Rowe's introductions to these documents are models for establishing texts so that they can be read productively by scholars.

John Rowe received numerous honors. He was recognized by the Kroeber Anthropological Society in Berkeley in 1969, with the publication of his complete bibliography to that date (Pfeiffer 1969). He received the highest civilian award bestowed by Peru, El Sol del Perú, in 1968, followed by the Gran Cruz de la Orden "Al Mérito por Servicios Distinguidos" in 1981. He was awarded an honorary doctorate by Brown University in 1969, and the Society for American Archaeology presented him with their 50th Anniversary Award for Outstanding Contributions to American Archaeology in 1985. After his retirement from the Berkeley department, he was given the Berkeley Citation "for distinguished achievement and notable service." A volume of *Nawpa Pacha* (nos. 25–27) was published in his honor in 2004, and the most recent issue (no. 28), published in 2006, includes an extensive obituary and personal tributes, which are excellent sources of biographical information. It also contains a complete bibliography of his work through 2006. A collection of his papers on the Incas was edited in Cuzco in 2003. Rowe was further honored posthumously by a symposium titled "A Fine Sense of Time" at the 52nd International Congress of Americanists in Seville, Spain, in July 2006.

Rowe was married twice, to Barbara Bent Burnett in 1942 and then to Patricia J. Lyon in 1970. He had two daughters—Ann Pollard Rowe and Lucy Burnett Rowe—with his first wife.

From the beginning of his career, John Rowe conceived of the Andean past as a unified whole, undivided by the artificial boundaries created by scholarship and structured by the unifying thread of time. He will be remembered for his creative approaches to problems that had become stumbling blocks, for the breadth of his scholarship, and for his commitment to research on the Incas from the earliest beginnings of human occupation in the Cuzco valley to the resurgence of an Inca imperial identity in the 18th century. Perhaps most importantly, although more fleetingly, he will be remembered by the many students and colleagues engaged in research related to his own broad interests, whose efforts he supported in numerous ways.

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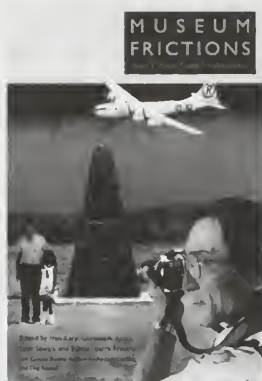
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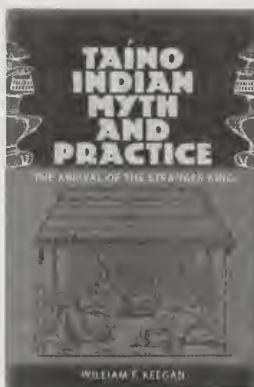
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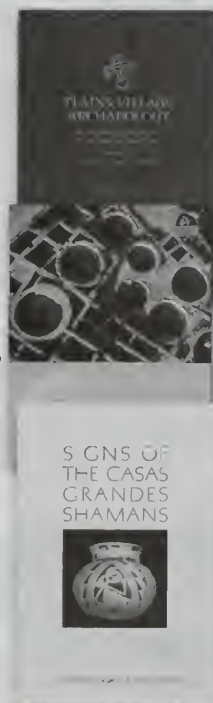
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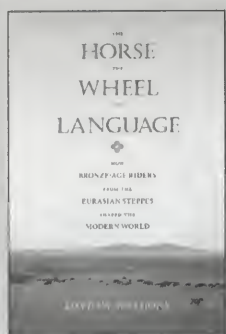
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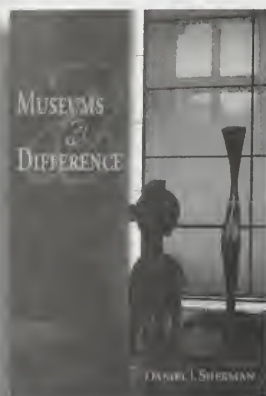
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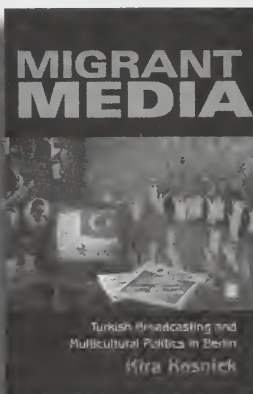
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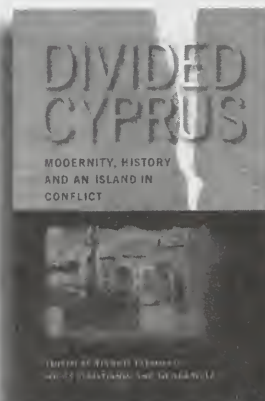
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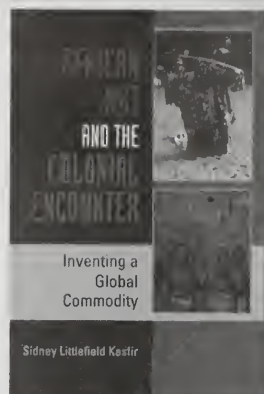
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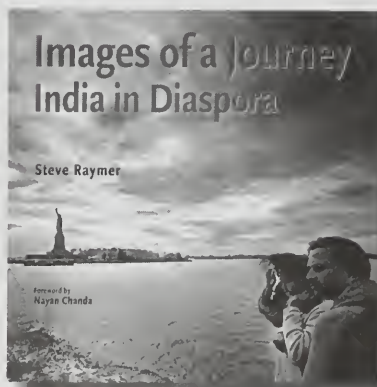


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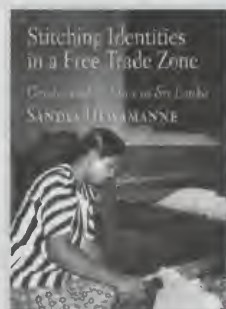
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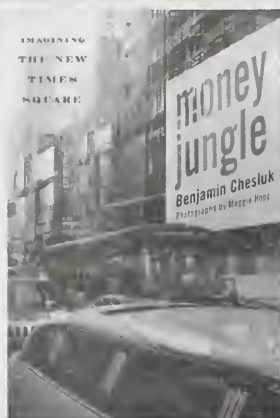


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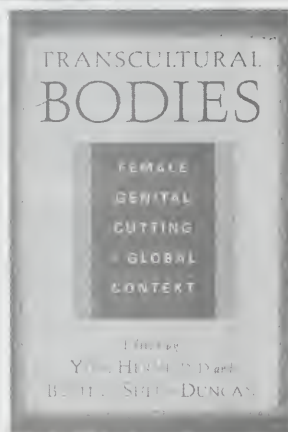
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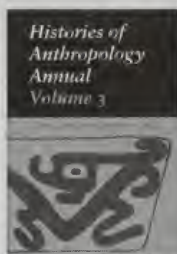
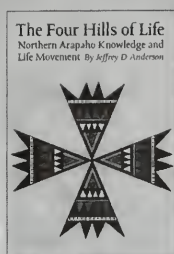
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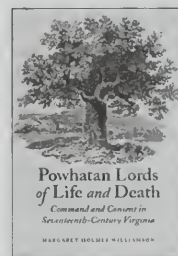
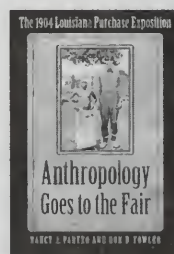
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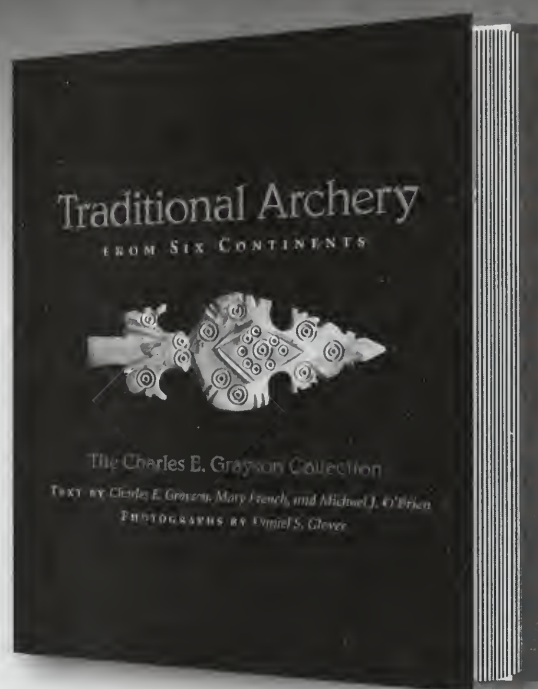
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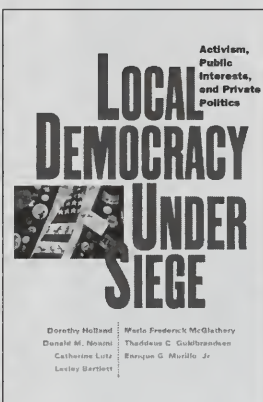
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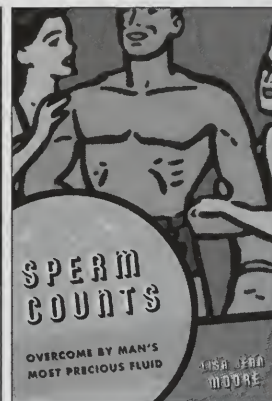
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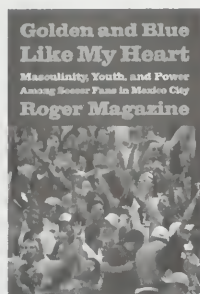
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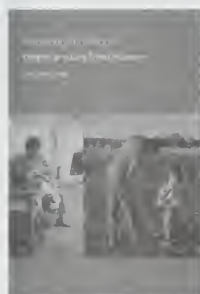
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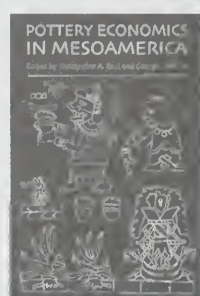
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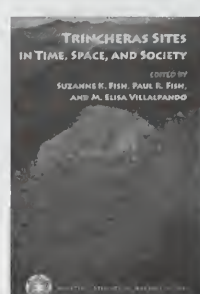


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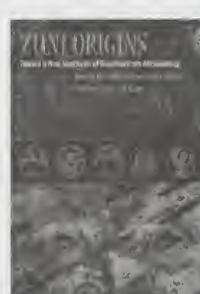
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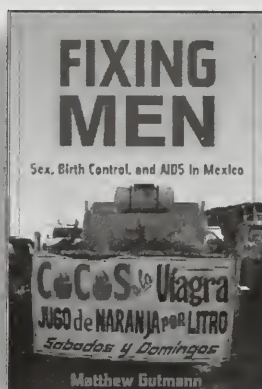
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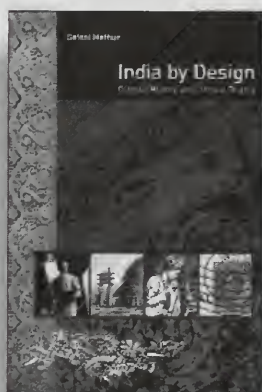
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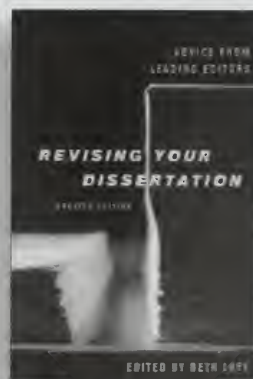
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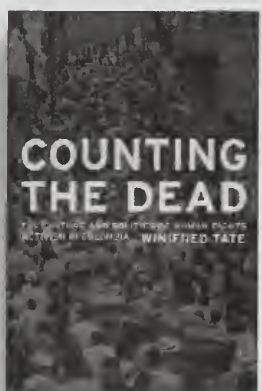
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